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NEW SERIES.]

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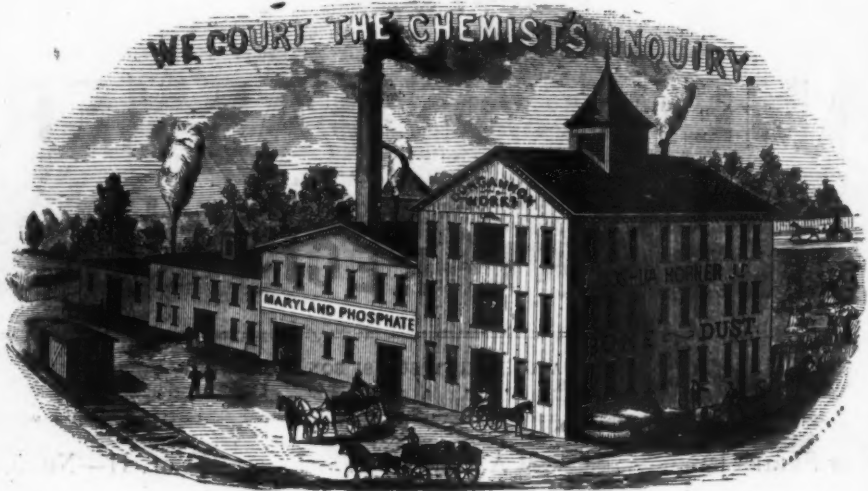
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[ESTABLISHED 1848.]



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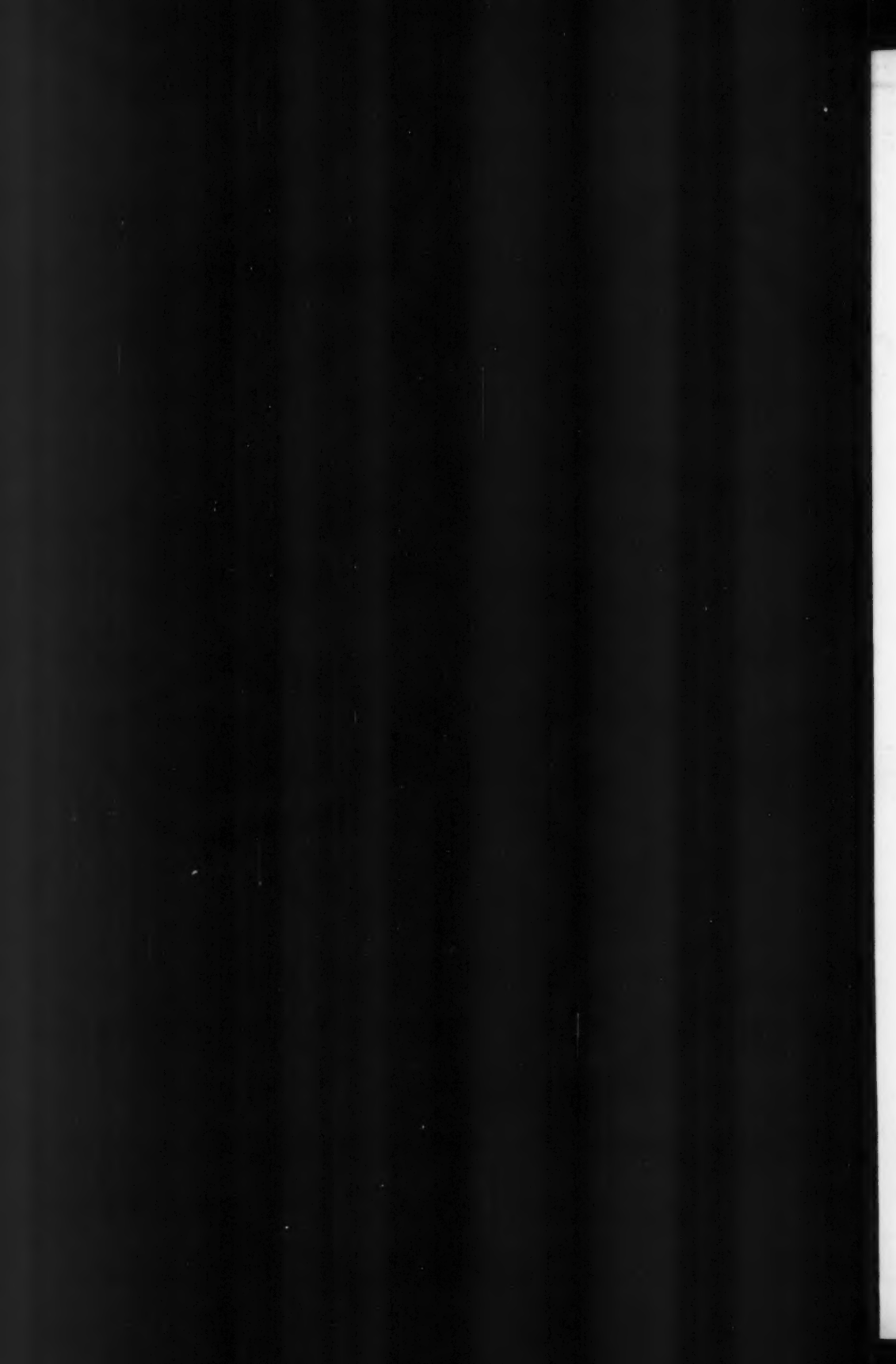
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THE AMERICAN FARMER AND RURAL REGISTER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
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MAY, 1873.

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Agricultural Education.

The subject of Agricultural Education is now attracting the attention of the farmers and planters of the United States, and we find in the Agricultural press at the East and West very severe strictures upon the manner in which some of the Agricultural Colleges established and endowed under the law of Congress have been conducted, and calls for a change in the system now in vogue. Except in a case or two where the sanitary or moral condition has been called in question, the principal objection seems to rest upon the fact, that the practical details of agriculture have been overlooked, and these institutions made to take the place of, or rendered mere auxiliaries to, the literary institutions which abound in every state. We think the substance of the views held upon this subject may be gathered from the following extract from a correspondent of the *Western Farmer*, in attendance upon the Illinois Farmers' Convention, which was held at the town of Champaigne, where the Agricultural College of Illinois is located. He says:—

"Our State Agricultural College, located at this place, is splendidly endowed by the joint gifts of the city, county, State and general government. It has a scholarly man at its head, and an able faculty to assist him. It has good buildings and is erecting very elegant ones. It has a large farm and a large quantity of appliances for the prosecution of its appointed work; but regarding its practical value to the farming interests of our State, 'your deponent saith not.'"

After illustrating by an anecdote his views

of the present state of the case, the writer admits that the institution has all the facilities for the work expected of it, "when it really tries," and adds:—

"Probably it will be found that men who have had practical and experimental education in the departments of Agriculture will be a necessity to fill the chairs of the Institution before it will fully accomplish its mission. It is not sufficient that the faculty submit to the ruling of the board of trustees to make Agricultural studies more prominent than the dead languages. The president and professors must be enthusiastic and irrepressible in their determination to make the school one where farmers' sons will develop a love for the farm and its pursuits, as well as learn how to make the profession increasingly remunerative."

Great allowances must be made for the apparent shortcomings of these institutions, for like most other innovations upon old beaten paths, time alone can be expected to produce an approach to perfection; but we have no doubt that with occasional stirrings up by the press, the crudities which are now to be found in the system will soon be eradicated, and the blessings intended by the original founders and promoters, and which were promised to the agricultural classes in their establishment, will be fully realized.

We feel that we have a peculiar right to speak upon this subject. With others, our fellow-laborers, the original projectors of the establishment of these Colleges, we urged the adoption of the system, in the *American Farmer*, and at the meeting of the Executive Committee of the Maryland State Agricultural Society, held in Feb., 1854, after some

preliminary proceedings, a committee was appointed, consisting of Messrs J. Howard McHenry and W. W. Glenn, of this city, to prepare a supplement to the charter of the Society, and present it to the legislature then in session, authorizing the Society to issue stock to the amount of 10,000 shares, at \$25 per share, to carry into effect the establishment of an Agricultural College in Maryland—and another resolution was at the same time adopted, appointing a committee, consisting of Messrs. Gelston and Sands, to prepare books for the reception of subscriptions for the purpose indicated.

Here was the nucleus for the establishment of the present College in Maryland, with a modification afterwards made, of having it as a distinct establishment and disconnected except incidentally with the Agricultural Society. The money was subscribed principally by individual members of the Society, and with others we not only contributed our labor and influence, through the medium of our journal, but also of our pecuniary means to the accomplishment of the object we had so much at heart. When the work was accomplished, and the doors of the Institution thrown open to the reception of scholars, our Junior was one of the earliest to have his name enrolled upon its list of students, and with a fellow student from Anne Arundel, was the first to enjoy the honors of the College, in receiving its diploma. In the same year (1854) that the preliminary steps were taken in regard to our College, a committee was appointed by the State Agricultural Society to memorialize Congress for the establishment of a National Agricultural Institution, upon a plan similar to that recommended by President Washington during his administration, and which was proposed to be modeled after "The National Board of Agriculture of Great Britain." This committee consisted of Messrs. Jas. T. Earle, Oden Bowie, Clement Hill, F. P. Blair and Geo. W. Hughes, of this State, who presented a very able report to Congress upon the subject, which was submitted to the Senate and referred to a committee, of which the Hon. Mr. Morton, of Indiana, was chairman, who recommended, in a very impressive report, the adoption of the project as proposed by the Maryland committee. (These documents can be found in the American Farmer for August, 1854.)

Although the plan suggested was not the

one finally secured, it undoubtedly eventually led to the securing of the present system, by which the government bestowed a very liberal quantity of the public lands, proportioned to the number of representatives in Congress from each, for the endowment of a College in every State.

It was not, however, our intention at this time to trace back the history of the establishment of the present Agricultural College system in this country, a task which we have proposed to ourselves to undertake at some future period, in order to put before their fellow-citizens the merits of many of our co-workers in this good work, and to show that it is to our State that so great a boon (if rightly appreciated and carried out to perfection) to the greatest producing class of the nation is due. But on re-perusing the admirable address of Professor E. M. Pendleton (noticed in our last) to the Agricultural Class of the State University of Georgia, we were so forcibly struck with the very just views presented by him, and which we know are identical with those held by the first projectors of the system, that we have been induced to make some extracts from the same, as peculiarly suitable for the present moment, and which will be found worthy of the most serious consideration of all persons engaged in, or connected with, the education of the youth of our land, who are intended for farmers.

Prof. P., after alluding to the passage of the law by Congress for the endowment of these Colleges, says:—

"My *beau-ideal* of an Agricultural College has been, to have the poor boys of the country, or rich ones either, who have been reared on a farm, and intend to be farmers, and nothing else, brought together at a School where a good English education is demanded as preparatory, and a thorough course of Agricultural Chemistry, Geology, Chemical Physiology and Political Economy is taught, and the Agricultural Art exhibited and developed after the most approved and practical style. I say the poor boys of the country, because they have not the means of being educated within themselves, and but few of the rich seem willing to make farmers of themselves. To such a College none would go but those who desire an Agricultural education, and we might expect the knowledge they acquire to benefit themselves and their country in years to come.

"But I am informed that no such School exists in the land: that the Agricultural Colleges have many students, but comparatively few who ever intend to be tillers of the soil. They come to be educated, but with other

ends in view. I think an Agricultural College should first be open to boys who intend to be farmers; next, those who desire to pursue some of the industrial arts; and lastly, the learned professions might come in, if there is any room for them. The Agricultural element should be so completely in the ascendant as to give character to it as a profession, and prevent invidious distinctions as between it and other professions. The tuition should be free to all, and the only distinction made should be as to scholarship and behavior. I trust we shall be able in this College to present a good example in these particulars to all others."

After showing the "necessity for educating the Agricultural masses," by teaching the students as is the case in other professions, the first principles of their calling; to make them acquainted with the nature of plants, the constituents of soils, the food upon which plants feed, the substances of which they are composed, and the laws which govern their nutrition and life, he adds, "*we intend to keep constantly in view, as the great central idea of all our teaching, the Practical, the Useful*"—and whilst "old foggy" *routinism* is avoided on the one hand, the error of mere *fancy farming* will be discarded on the other. Prof. P. says that "it is intended to have two classes of experiments, and to test all the theories of cultivation now extant."

"When, (he adds) it is remembered that about two hundred thousand tons of nitrogen, and seventy-five thousand tons of phosphoric acid, are hauled off from our fields in the cereals and cotton crops annually, and these invaluable principles are soonest exhausted from all soils, and when returned, render them as fertile as ever before; and when it is also known that vastly more than the amount above-mentioned of nitrogen escapes annually from our farm-yards and habitations, and that this nitrogen and phosphoric acid cost the farmer, whether in commercial or home-made manures, millions of money, how important that the most economic methods should be found out, and taught to the country, for preventing this immense waste."

Prof. P. shows that "Agriculture is the basis of all human society, the substance of all human life;" and that "without it, commerce, the mechanic arts, and every other calling in life, would utterly fail; that twelve hundred millions of human beings depend upon it for their daily sustenance; that nine-tenths of the fixed capital of all civilized peoples is embarked in it, and more than two hundred million of men are daily laboring with brain and muscle in its interests; the Agricultural Art rises in majestic proportions so far above all others that in comparison with it, they dwindle into utter insignificance."

It is also true that it is the most independent occupation. He says:—

"When men of every other calling in life have to compete for business, and seek, oft-times, obsequiously for patronage, the farmer commits his seed to the ground in full confidence of the promise, that 'While the earth remaineth, seed-time and harvest and cold and heat, and summer and winter, and day and night shall not cease.' It is in fact, the only calling which has a Divine promise connected with it, and God's direct blessing upon it. For He has promised to send upon the husbandman the early and latter rain, and to bless, not only the just, but the unjust, with sunshine and showers."

He shows, in some forcible illustrations, how much farther is the husbandman removed from the temptations of life, than those of most other professions; that "there is no danger of this noble calling being overstocked, which is not true of any other occupation in life, many of these being so full since the war, that the question of bread has become a most important one." He says "he verily believes that intelligent and practical agriculturists are making more money than any other class of men"—he does not mean the wild schemers, who live in cities and endeavor to run large plantations as in the days of slavery; or "old foggy routinists, who, ignoring all the improvements of Scientific Agriculture, and running the same schedule their fathers did—exhausting their lands without a proper application of fertilizers and judicious rotation of crops—but I mean those who read and learn from the united wisdom of the ablest minds in the land, through Agricultural journals, how to plant, and cultivate, and improve the soil; and especially the class who heed the advice of Poor Richard:

"He that by the plow would thrive,
Himself must either hold or drive."

"I know two brothers who came out of the war poor and penniless. They acted as farm managers for a year or two, then rented land, then bought a farm together. This winter, they have separated, each buying a plantation, and one of them expects to use fifteen tons of fertilizers the present year, and pay cash for them. This is the class I refer to, and you find them here and there throughout the land. They are rising above the sons of the rich of the last generation, and will not only be the tillers, but the owners, of the soil now held to such a large extent under the Homestead law, by those who lack energy and muscle, from deficient training, to cultivate them."

We will conclude our extracts from this admirable address by giving the following concluding paragraphs, regretting our inability to publish it entire:—

"We have referred to Manual Labor as honorable within itself, and not degrading even to men of the most intelligent minds. We have insisted that you should present good examples before the youth of the country in reference to this matter. We do not mean,

we do not expect, that young men educated here should necessarily have to become day-laborers, and bury their talents with the menials of society. Far from it. We expect greater things of you. The education you acquire here will at once place you in position to be the managers of labor, rather than laborers yourselves. Knowledge is power. Brain-work is more essential to Agricultural advancement now in this country than ever heretofore. There is plenty of land, and will always be plenty of laborers. True, in the transition state from slave to free labor, some difficulty has been experienced; but this is adjusting itself gradually and very creditably to our former slaves. As they die out and melt away, like the Indian, before the rising light of civilization, other laborers will come in to take their places, and we shall not suffer in this regard.

What we want is more intelligence among our Agriculturists. The time has come when a mere ignoramus cannot succeed at cultivating our worn-out lands. A man must have the knowledge himself, or be able to apply the knowledge of others. To fill this great want of society, our Agricultural Colleges have been projected throughout the land, with a far-seeing wisdom on the part of Congress, and you are to be the harbingers of this blessed light of Science, and the first dispensers of knowledge acquired here, which we trust will permeate the whole land and bring down upon every department of society the benisons of Industry, Thrift and Plenty.

But what, it may be asked, has Scientific Agriculture accomplished? It is a remarkable fact that, up to the present century, Agriculture had made but little improvement over the Greek and Roman methods, as described by Cato and Columella. Up to this time, it had been looked upon as a simple art, never taught as a science, and the world remained in inglorious ignorance—just like the old foggy farmers of the present day—until Sir Humphrey Davy delivered his first course of Lectures on Agricultural Chemistry in 1812. Even then no rapid changes took place, and it began to be feared among intelligent agriculturists, that the world would not gain much from the crude notions of Agricultural Chemistry projected by the genius of Davy.

The foundation-stone, however, had been laid, and such great minds as Liebig, Boussingault and Johnston began to erect the superstructure, and now we have many builders in every civilized land at work upon this beautiful temple of Agricultural Science.

Not thirty years ago, Johnston said, in his lectures on Agricultural Chemistry: "Some of the most skillful living Chemists predict that methods will hereafter be discovered for compressing into still less bulky form the substances required by plants, and that we will live to see extensive manufactories established for the preparation of these condensed manures." What was then prophecy, is now history, and the extensive fertilizing establishments in Baltimore, Charleston and other

cities, for the manufacturing of fertilizers, only show what rapid strides have been made within a quarter of a century toward Agricultural improvement.

A singular conjunction of three great events transpiring about the same time, cannot be looked upon as emanating from any other source than that of an overruling Providence:

1. The discovery of Liebig, that acid phosphates, formed in the soil being soluble in water, were the mediums through which plants received their phosphoric acid, and the substitution of a cheap superphosphate made by the action of sulphuric acid on phosphate of lime would supply this demand.

2. The introduction of Peruvian Guano from the Chincha Isles; first in Europe, then in America, which has proven to be the cheapest source of ammonia ever found.

3. The discovery of phosphatic deposits in various islands, and more recently on the coast of South Carolina, which furnish an almost inexhaustible supply of phosphoric acid for Agricultural purposes.

This remarkable coincidence, together with the vast improvement in Agricultural Chemistry itself, has accomplished wonders in all civilized lands. It is not saying too much, that the production of all lands in Europe and America, where these concentrated manures have been judiciously used, have been doubled. This is especially true of this section of the cotton belt. I am informed that a single county above here has increased its production of cotton from five hundred to five thousand bales, and there is no telling what will be the end of these improvements, as we are in the embryo state of Agricultural science.

I trust, young gentlemen, that you will not let all these golden opportunities pass, by slighting the means now put into your hands to become experts in this most ancient, most useful, if not most lucrative and honorable of all the professions. I trust you will buckle on your armor and prepare for the battle of life, with that determination and energy which ever characterizes true men, having Truth for the centre gem of your character, remembering that whether you fail or not in your mere worldly enterprises, you will find, when life's sun is sinking, that "Virtue is its own reward."

Farm Labor.

Our S. C. correspondent on this subject will be read with interest. It is the most important problem for the South to solve, and one which we are satisfied time alone can settle—therefore let *patience* have her perfect away. We must frankly admit, that we have but little confidence in the attempt to introduce foreigners as mere laborers, unless provision is made for their future condition as land-holders. In the cities and towns—on the highways, along the railroads and amidst the

Innumerable public improvements which are going on in every direction of our wide spread country, almost every nationality of the world has its representatives, all receiving wages so far in advance of what can be paid by the farmer or planter, that those whom this class may be enabled to secure for a while, will soon be brought into association with their countrymen, and the result is readily anticipated. But we do not wish to repress any attempts at the solution of this knotty point—it heavily bears upon every branch of farming, and not less so in both town and country, upon our domestic comfort.

We have been induced to allude to this matter in a special manner, by reading a communication in the April No. of the *Tennessee Southern Farm and Home*, which takes the ground assumed by Mr. D. Dickson, of Georgia, in our last, who, after advising that the planter should make all he needs at home, by which means "one-half the labor in cotton will make more money than all," adds, "make up your minds that we can accomplish anything we need without any more men or foreign dollars—take hold, and we shall soon be prosperous. Then we shall own our country and our money. Hold to your land with a death-grip, for your children and for the native landless. Let charity begin at home. You will never make money out of immigration." The Tennessee writer reiterates the same sentiments as those expressed by Mr. Dickson, and appeals to those who have made the experiment with Swedes, Norwegians, Danes and Germans, to testify to the fact, that imported European labor has proved worthless, even if it cost nothing to import them. "Whenever (he adds) we find that we cannot employ the negroes—a race created, I believe, expressly by a wise Providence to be our laborers—and they are disappearing from our country—then we must change our entire system of production; abandon our present staples, and adopt a system that will suit such labor as we may be able to import."

The writer, having reference to the labor suited to the Cotton states, thus gives his opinion upon the value of that of the negro:

"I confess that Sambo is not nearly as good a laborer now as he was a dozen years ago; but bad as he is, I would sooner to-day have one negro to help me to raise cotton and corn than any three Swedes, Danes or Norwegians that Scandinavia could send me. It is vexatious, to be sure, to find that when your crop

most requires work your laborers are gone to town to listen to a stump speech from a scallawag or carpet-bag politician, or to vote for an Aaron Alpeoria Bradley, or which is still more disgusting, for a Whiteley for Congress, or for the Legislature; but when they return they will do better work than the Swedes who have never gone beyond the fence. I maintain, and have always maintained that the white men of the South can, if they choose, control the negro and make him the best and most profitable laborer for their purposes that can be found anywhere. Wisdom, justice and moderation will inevitably prevail, and the day will come—it is coming fast—when the negroes will see and admit that their best friends are their old masters, and that their true interests depend on cultivating the confidence, good will and protection of the white man. The wealth of our country is its supremacy in the production of cotton. It is upon this staple we must mainly rely to rebuild our fortunes, and when we are compelled to cut up our plantations into truck patches, or rely on Europe to supply us with white labor, our cotton supremacy will cease to exist, and we must look to some other industry to support us. Import European herdsmen, shepherds, grooms, haymakers, laborers for grain farms, and house servants. They are the best and most skilled; but leave the cotton and corn fields to the negro and the mule, which in combination constitute the very best labor."

Agricultural Calendar.

Work for the Month—May.

This month is ever a busy one upon the farm, and whether the preceding one has been either favorable or unpropitious for farm work, this one is sure to bring its constant and pressing round of duties, which can neither be neglected or delayed. The only choice in the pressure of multifarious cares is to do that first which is of most urgency and most consequence; and one thing which is always urgent and always of prime importance is to *fight the weeds*. No matter how well prepared the ground may be, how skilfully ploughed and thoroughly pulverized, nor how carefully the seed have been selected and evenly distributed, unless the weeds are carefully watched and kept in subjection, the advantages already secured will be lost beyond recall. No crop, however promising, can stand against the insidious but overwhelming advances of these enemies, and the dangers of delay are nowhere so apparent or so fatal as when they are once permitted to get a foothold among

our cultivated crops. Their extirpation may therefore be set down as one of the most pressing portions of the work for this month. But we pass, in a more orderly manner, to other topics.

The Corn Crop, in most of the regions where these pages are read, has probably been planted and perhaps had one or two workings, but in this immediate locality many of our farmers delay, from choice, the planting until this month fairly begins. Nothing occurs to us as worthy of further note concerning the preparation and manuring of the land, the planting of the seed, &c., beyond what we have already given in our last, to which we refer, and we accordingly pass to the consideration of

The Cultivation of the Crop.—The main object to be aimed at is to keep it clean from the time it is first worked until ready to lay by; but, as we have frequently stated, we decidedly oppose the use of the plough after the plants get to be of the height of 9 or 12 inches. Then it should be replaced by the cultivator, by the use of which the breaking and tearing of the lateral roots is avoided. These feeders undoubtedly stretch out several feet in every direction, and as the pabulum which they appropriate for assimilation and the building up of the plant is taken in at their extremities, of course any plan of cultivation pursued which systematically breaks up these feeders several times during the growth of the crop, must cause a diminished yield, proportioned to the injury thus inflicted. When frequent rains fall, the damage to these feeding rootlets may be quickly repaired, since the vitality of the corn plant is very great, and fresh roots are quickly formed under favorable circumstances, but in times of drought the evil will not be so readily or quickly remedied, and the effects of the practice to which we refer will be discovered in a diminished yield and small ears.

It is a matter which can be easily tested, and a few rows only will afford opportunity of judging which plan is best to pursue with the crop.

Do not allow the ground to become hard and baked; every shower that falls will form a crust upon the surface, through which the air, with its freight of fertilizing atoms, cannot penetrate. The dews and rains of heaven and the atmospheric gases are Nature's manures, but that they may have full influence, we must keep the surface light and open, that both vapors and liquids may freely penetrate and circulate. The fight here is ever, as we note above, with the weeds. They drink up the moisture and nutritive principles which would otherwise go to the corn. To keep these down and to make the surface soil, finely pulverized, itself act as a mulch, is what we aim at in the constant stirring and opening of the soil; and to neglect it is to risk your crop.

Fall Potatoes are in this latitude gotten in by many as early as the 10th of this month, whilst other cultivators prefer to wait until the first or the middle even of June. For this crop, which must withstand the droughts of midsummer, plough deep and pulverize well. In their after cultivation do not plough too deep nor too close to the rows. After the first working of them, as with corn, the plough had better give place to the cultivator and hoe, the great object aimed at here, too, being to keep the soil light and porous, and the weeds from even showing their heads. In hilling up do not make the hills too high; their surface should be flat, or even hollow, that the rains may not run off, but be absorbed. Dust over the vines occasionally a sifting of plaster, or of plaster and lime mixed.

The manures suitable for potatoes we have already indicated are those rich in the inorganic elements, especially phosphoric acid and potash, though in practice ammoniacal manures seem to exert an influence which is hardly to be accounted for upon the grounds ordinarily assumed as the base of calculations for manurial applications—Peruvian guano being found in many cases very effective.

Potash is an element which must be supplied where we want to grow potatoes. Dr. Nichols, of Boston, says that a crop of corn of 100 bushels to the acre will remove from the soil 150 pounds of potash, but that a crop of potatoes of 800 bushels to the acre will carry off at least 400 pounds of potash, and that a medium crop of these tubers requires twice as much of potash as a medium crop of wheat. We see, therefore, the importance, nay the necessity of its addition in some shape to soils not abounding in it. Ashes, unfortunately for the farmer, are obtained now with great difficulty, if at all; and recourse must be had to other sources of supply. One such source is probably to be found in the German potash salts—either the muriate, or the less pure Kainit, which contains besides sulphate of potash, sulphates of magnesia and of lime, the latter of which seems a peculiarly desirable application, in any mode, for potatoes. Do not use crude, green, unrotted barn-yard manure, if you can give anything else to the crop. It engenders and perpetuates disease.

Root Crops.—We here reiterate what we have said in previous numbers, that no farmer should feel that he is doing his duty to his stock, or to himself, who neglects to put in a small patch at least of some kind of roots. None of them are, of course, as nutritious and fattening as corn, yet in feeding stock in winter we have small doubts but that half corn and half roots would produce better results than all grain. Their alternative, refreshing and opening influence cannot but be of the greatest advantage when used in connection with the dry forage which makes up so large a proportion of the winter keep of our stock.

In our last we gave some hints as to their management, to which we now refer, and we take leave of the subject for the present by quoting the remark of an able and instructive contributor to the *Farmer* of last year, that "successful root-culture is impossible without deep cultivation and thorough manuring."

Millet is an excellent substitute for grass, where the latter is not cultivated, and should be sown on every farm where a short supply of forage is anticipated. It stands well against drought, but ought to be sown in good rich soils, deeply ploughed and well manured. It is quick of growth, makes excellent and palatable hay, not much less nutritious than timothy, and will produce from 2 to 3 tons per acre. Four or five pecks of seed to the acre is the usual quantity. On poor, thin soils, millet does not do very well.

Fodder Corn.—This may be sown in succession, and a very small area of ground well manured and well prepared will yield a great amount of food for stock. We have found that that which is sown early is more easily managed in curing for winter, drying before the autumnal rains come on. Many persons recommend Sugar Corn, Stowell's Evergreen, Dutton, and other varieties, as containing more saccharine matter than the ordinary field corn, but on this point we cannot knowingly speak of our own experience. The ordinary Western mixed corn produces an abundance of stalks, which grow tall and furnish a vast quantity of forage for use, both green and dried. Sow in drills about 2½ feet apart and use about 3 bushels of seed to the acre. Cut when the pollen drops plentifully from the tassels.

Lucerne may still be sown in this section; farther south than Virginia sowing had better be deferred until after the droughts of summer have passed. We continually caution our readers that only disappointment will await their experiments with this plant if their soil is not good and clear of weeds. Under favorable circumstances it is wonderfully productive, but in case of the neglect, which too often attends the growing of our farm crops, it is very apt to disappoint the hopes of the cultivator.

Italian Rye Grass.—This plant has been used to some extent in this country for soiling purposes, and succeeds well in moist, rich soils, from which large and frequent crops may be cut each season. In Europe it is largely grown on lands artificially irrigated, and the produce raised in this way is enormous. The Messrs. Sutton, in their *Farmers' Year Book* for 1873, give reports of crops of 90 and 100 tons to the acre of this grass, grown from their seed, improved, as we suppose, by careful cultivation and selection.—

We think that persons favorably situated for practicing irrigation might find it to their interest to try this grass in that way. Grown as ordinarily in suitable soils it yields large crops, and is worthy of a place especially where soiling is practiced, for which use about two bushels of seed to the acre is required, to be sown early this month.

Broom Corn.—This crop should be grown on a dry, rich loamy soil, if attainable. It may be planted in drills or in hills. Keep the land clear of weeds, and cultivate generally as for the corn crop.

Pumpkins.—These make excellent, succulent feed for cows, and can be readily grown in with the corn. The earlier they are planted the better. Give each hill a shovel full of good manure, keep them clean and look out for the striped bug, which infests them. These destructive insects may be kept off, it is said, by dusting the vines when the dew is upon them in the morning, with a mixture composed of 1 bushel of ashes, ¼ do. of plaster, and 1 pound each of sulphur and Scotch snuff. Hand picking is a sure way of getting rid of them.

Tobacco.—Of course the care which has been given to the plant bed and the condition of the plants will influence the time of setting out. Our New England correspondent's letter in this issue will be found, as usual, very interesting; and the intelligent planter will, of course, make any allowance for differences in latitude, &c.

Working Animals need extra care and feed now. Give some attention yourself to this matter and do not depend upon hirelings entirely to properly secure the comfort and health of your beasts of labor.

Salt your Stock once or twice a week, or give that often to each animal a tablespoonful of a mixture of equal parts of ashes, salt and lime.

Cotton.—The indications are that a very large cotton crop will be made this year—and whilst we hope that the planter will not neglect to secure a sufficiency of other crops to supply his own necessities, yet a large crop of cotton will give us the control of the markets of the world, and add to the revenues of the South hundreds of millions of dollars, in cash. We have already in former Nos. given instructions in regard to the management of the crop, and will now add a short extract from an address by J. L. Bridgers, Esq., of North Carolina, delivered some years ago, but the principles of which doubtless are as applicable at this time as when first uttered. He says, that "thorough cultivation is absolutely essential to the production of fine crops; it cannot be

performed without putting the soil in a proper condition before planting.

"Cotton should be planted early and shallow, for every plant with a broad leaf, which indicates that the plant is to a considerable extent dependent upon the atmosphere, if it remains under the soil long after germination comes up bleached and in a very unhealthy condition. It is desirable that it should all come up as near the same time as possible; to effect this, the opener must have a gauge so that the seed may be planted a uniform depth. There is no plant which requires earlier cultivation; the plows and hoes should be started as soon as the plant is up sufficiently to mark the row from one end to the other, for it is never too little to work after it is up. The sooner it is thinned, too, the better, for if this is not done early it runs up spindling without throwing off any limbs near the ground where the best bearing limbs are usually found. It is owing to the same fact that we so seldom see cotton produce a good crop which has once been grassy. So soon as the soil is stirred the young plants feel the influence of the atmosphere, and there is no plant to which it is more essential. Hence we clearly see the great necessity for early cultivation. The remark may also be repeated here, that cotton never bears well when the tap root reaches the region of perpetual moisture.

"It should be borne in mind that work is much more profitable when done to prevent the coming of grass than when done to destroy it. There are industrious planters who always have grassy crops, for the simple reason they will not plough to prevent grass, but wait for the grass to come and grow so that they may have the pleasure of destroying it. It is well known that it takes grass several days to come after a ploughing, depending more or less upon the moisture of the soil; the deeper the ploughing the longer the grass will be in coming up, and many industrious planters have grass from this cause. Cultivate very early and keep the crop very clean.

"So soon as the cotton is thoroughly open it commences losing its length; a single rain sometimes diminishes the length of the open cotton ten per cent. The same field when picked as rapidly after opening as practicable, yields a much heavier crop than when allowed to remain in the field; the longer it remains open the more difficult it is to pick out; it is always in recently opened cotton that the hands do their best day's picking."

Watermelons—Canteloupes.—

A good supply of these ought to be planted. Do not put different kinds near each other. An excellent mixture for them is made up of well rotted manure and ashes. Dust the vines occasionally, when the dew is on them, with ashes, plaster or soot, to keep off the bugs. A gentleman recently informed us that wherever hemp is growing no insects will attack melons or squash. The hemp seed should be either sown before the melon and squash are planted or soaked in water, to secure their early germination.

Correspondence.

Our Monetary System.

Messrs. Editors of the American Farmer:

In the series of articles communicated last year to the *Farmer*, commencing in January and ending in August, my main design, as the judicious reader must have perceived, was to expose the ruinous effects of our *monetary system* on the interests of agriculture. I feared that, in the then feverish state of the public mind, I might be supposed to have a political object, and that the editors, or some of their readers, might think that I was leaving the neutral ground properly pertaining to an agricultural journal. I had no such purpose; yet I thought it prudent to mingle with the discussion of the main subject other topics, by way of giving interest and variety to the papers, and attracting the attention of gentlemen of all shades of opinion to the great practical question under consideration. The heats of summer, my own failing health, and the near approach of the Presidential election, caused me abruptly to abandon the discussion, to be resumed at a future day and probably in a different form.

I have been urged to continue the investigation in the financial and some of the leading political journals of the large cities. This I have declined, because I prefer an audience of farmers, perfectly independent and disinterested, to packed juries, composed of boards of trade, bank directors, and the various cliques and rings that make their fortunes by speculating in money.

It is my purpose, with your consent, to resume these papers in the *American Farmer*. I know no journal in the U. States so generally read by intelligent and thinking men of the classes that I desire to reach. It is obvious that little is to be expected in the way of reform, from the rich. The system which has operated so favorably for them, is good enough for their purposes. They have little use for money in the proper sense of the word, and rarely encumber themselves with it. Their funds are with their bankers, and checks, with them, supply the place of money. It is the great body of the people, laboring mechanics, and farmers, who require money in the shape of coin and convertible paper, and they have just reason to complain of any legislation which deprives them of the power of getting the only means of carrying on their daily operations. It is to these classes, but especially to the farmers, who constitute a large majority of the people of the U. States, and who have undoubted power to control the government, that we must appeal for the desired reforms. I rejoice to see that the farmers in all parts of the country are arousing themselves to a sense of their danger and combining against all monopolies and rings that threaten the destruction of their dearest

interests. Railroad monopolies and all the abuses connected with freight and transportation ought to be abated, and I commend the zeal of the patriotic farmers of the West, in their efforts to bring about this result. But these evils, great as they are, are as nothing when compared with the want of money, arising from the denial of a local currency. The one affects only transportation, the other strikes at the very root of production.

In my former articles, which were prepared with much care and thought, I endeavored to condense the great principles of political economy, applicable to the subject, into as narrow a compass as possible, and I think, at my time of life, I shall not be charged with vanity when I say that there are few men anywhere who have devoted as much study to this and kindred subjects. From peculiar personal circumstances, which I need not mention, I have from my sixteenth year to the present day been devoted to this science. I might have written a volume on the subject discussed, if I had not deemed it a duty to condense my thoughts into a space consistent with the limits of this journal. I have merely attempted to set up the finger-board which points to the temple of knowledge, and conducting my readers to its portals, have invited them to enter and gather instruction for themselves. I desire to avoid a repetition of what I have already written, but to a proper understanding of the subject, it will be necessary to refer to principles already announced. Is it too much to ask of my friends who desire to pursue further this important investigation, to re-read the articles, that they may be familiar with those principles? I do not know at what value to rate my own productions, but I have always thought any article worth reading once, worth reading a second time; and for this practice we have the high authority of the wisest men, including Horace, who in one of his epistles informs a correspondent, whilst you were employed in pleading causes at Rome, I was engaged in re-reading the writer of the Trojan War.

I have been very much gratified at the manner in which those papers have been received in intelligent circles throughout the country. Many entire strangers have expressed their great satisfaction at my views, which leads me to hope that they are founded in sound principles, are sustained by public opinion, and will finally prevail. The New York Economist, the organ, as I believe, of the leading class of merchants in that city, which if not neutral is not partizan, and though supporting the administration, is independent on all great commercial questions, published the entire number for May, with a long and complimentary editorial, from which I clip the following extract:—

"Resumption, and How to Obtain it.

"We commend to the attention of our readers an article entitled 'Capital, Currency, Money,' published in another column of to-day's *Economist*. The author exhibits re-

markable acumen in his treatment of the difficult topic which he discusses, and carefully discriminates between the diverse functions of capital, money and currency, which are so often confounded by parties who assume to be authorities on questions of political economy. We entirely coincide with the author in the importance of this subject to farmers, and regard it as one of the most healthy signs of the times that it should be brought before their attention in a purely agricultural journal like the *American Farmer*. It has been too much the custom to regard farmers as the very last class in the community interested in matters of banking and currency. But in reality they have the very deepest interest in these questions. They constitute the chief producers of the country, and they are consequently obliged to bear more than their share of the results of blundering financial legislation. The price of every bushel of wheat or pound of cotton in the hands of farmers and planters is more or less influenced by the condition of the money market in Wall street. The famous "Black Friday" of the "September gold conspiracy," a few years ago, cost the farmers more money than was lost or made in Wall street, for the simple reason that it arrested the movements of grain and spoiled the breadstuffs trade of that season.

"It is apparent that we shall never have a sound currency until the classes that are more deeply interested in obtaining it take the subject out of the hands of the politicians. When the farmers and producers generally come to find out how they are wronged and injured by our defective financial legislation, then, and not until then, will reform be possible. If the question of resumption of specie payments would be fully and freely discussed in every Farmers' Club and at every State Agricultural Convention held between this and November next, the American people would soon possess the best in place of the worst currency system in the world."

It will be perceived that this enlightened journal expresses its entire concurrence in our general views. Yet in a subsequent part of the same editorial, the influence of the money dealers of this great commercial centre is plainly perceived. We are cautioned against arraying in opposition to reform, the influence of the national banks and other important interests that it would be wise to conciliate. This is emphatically a question for the masses. It should be left neither to the politicians nor to the money power that controls them. The national bank system is the fruitful source of all our troubles. It is a foul fungus on the body politic, and must be extirpated. In war it was justified by necessity, but in a time of profound peace it is not only a flagrant usurpation, but must be regarded by all intelligent and disinterested men a financial monstrosity. It has already destroyed the prosperity of the industrial classes, whilst it has enabled the rich to accumulate enormous wealth. And if the anti-

pated period shall not soon arrive, when the sentence pronounced on the plains of Shinar, shall be revoked and all nations become again one people, speaking the same language, and requiring neither ships nor armies, there will be no security for our national safety, should two or more of the great naval powers combine to destroy our commerce and cut off our resources.

During the last session of Congress this subject was much discussed, but I infer, in the House at least, not with very marked ability. A writer giving an account of their proceedings, says they reminded him of the discussions in a boy's debating society. The only speech in the Senate was, I believe, that of the chairman of the committee of finance, which is able and well considered, but plainly shows that he, too, is under the influence of the money power. I may in the course of these papers review this speech, with the accompanying bill. A distinguished Senator writes me that this bill is not understood to commit anybody, but was thrown out merely as a *feeler*. In other words, the public men, in this season of calm, desire information from the people. Farmers! I trust you will consider well this vital subject, yourselves, and give them the instruction they desire. I must now close this preliminary article, and without any distinct pledges for the future, express the hope that I may follow it with others, as strength and opportunity may permit.

WILLOUGHBY NEWTON.

Linden, Westmoreland Co., Va., April 7, 1873.

The Labor Question at the South.

To the Editors of the American Farmer:

That the negro must be accepted as the only possible practical solution of the labor question, is a proposition so manifestly incontrovertible, in the opinion of the writer, that he may, in his endeavor to establish it, be betrayed into too dogmatic a strain. A subject which has taxed to exhaustion the intellects of the ablest Southern statesmen, may not be thus treated; no man's *ipse dixit* can be received in any light but that of suggestion.

Not, therefore, as dogmatic assertion, but only as earnest suggestion, are the remarks to follow offered for the pages of the "Farmer."

With the majority of writers on this question, the confessed difficulty of subjecting the "demoralized" negro to such laws and regulations as are necessarily implied in the phrase "system of labor," is regarded as insuperable, and with this premise the deduction is logical enough that, for "negro" we must read "immigrant" in any and every programme claiming to satisfy the demand of the Southern States for efficient and controllable labor.

But, granted the demoralization of the negro and his present unfitness for the position the South would allot to him, are we not rather weak in our logic not to perceive that we are guilty of a *non sequitur* when we jump at the conclusion that present demoralization

—sufficient cause for that demoralization being given—implies ultimate demoralization—sufficient cause not being given?

That the sudden elevation of the negro from a condition of compulsory servitude to one of political equality with his former owner and master, has so thoroughly obfuscated his intellect as to blind him to the instability of his present status, and to the moral impossibility of his ultimate status presenting the same abnormal features it now manifests, is very easy to be understood; but that his superiors "in previous condition" and intelligence should be unable to penetrate the dim obscure of the present, and see, distinctly shadowed forth in the future, emancipation from this moral chaos through the *legitimate operation of moral law*, can be imputed only to the painfully engrossing demands of the present exigency.

No law of man's devising can uproot that fundamental law which endows with controlling and guiding power the culture of intelligence and morality. In reliance upon that law, and in the *fulfilment of its demands*, the South may confidently expect the gradual but sure subsidence of that baneful influence which now obtains as a necessary consequence of the mechanical exaltation of moral weakness and intellectual poverty.

The difficulty with the South—and it is one that can scarcely be exaggerated—is the "fulfilment of the demands" of this moral law as concerns the emancipated negro. I employ a phraseology but little too emphatic, when I describe this difficulty as one that can be met and vanquished only by the obliteration from the Southern mind of those views as regards the negro which were peculiar to and inseparable from his *ante bellum* condition. He has forever ceased to be a slave; henceforth, in the future history of the South, if there is conceded to him but the negative countenance of abstract justice, he will continue, what he now is, an irritating element in the body politic; but, if he is accepted as the God-given instrument by which the abundant resources of the South may be elaborated into material wealth, his present abnormal position of political ascendancy will in due time become a thing of the past—a phenomenon for the study of the closet philosopher and the pen of the historian.

Briefly as in one of his letters to the American Farmer the veteran statesman, Mr. Newton, has touched on the subject of labor and immigration, there can be nothing added to his remarks to increase their pertinence and force.

Immigration in theory necessarily fails whenever the attempt is made to sketch a programme for its practical adoption. The immigrants are *at present* unprocurable. Far away in the future we may catch glimpses of a steadily growing access of European settlers in the South, but before that period arrives the South will have been established in a condition of material and political prosperity to attract, without the intervention of immigra-

tion companies, the advent of the intelligent and skilled laborers of Europe.

The problem demanding solution at the hands of Southern moral and intellectual culture is not—where shall be found a substitute for the negro discarded? but how shall the negro demoralized be recovered from his demoralization? His recovery can be secured only by moral effort, guided by intelligence, on the part of all who claim to possess the moral and intellectual endowment of a superior race.

As long as we regard the negro in an utilitarian point of view only, as long as we continue to tolerate him as a necessary evil, to be used or discarded as the material interests of the hour may prompt, as long as we refuse to concur heartily in the conviction of Mr. Newton, that "God has furnished a class of laborers suited to the circumstances of the country, which it is *our duty* to use *for their good* and *our own*"—(the italics are mine)—so long will the inauguration of prosperity for the South be postponed.

This class of laborers we shall use "*for their good*" only to the extent in which we distinctly recognize their "rights" to attain by all legitimate means such moral and intellectual development as they are susceptible of. If we deny them these rights, there will be no evading the results to ourselves of such denial—results that will *not* secure *our own good*. Much could be said in this connexion on the incalculable advantage to the South afforded by the reorganized system of labor thus accomplished by means of the negro remodeled, and his condition of a laborer defined in terms of mutual benefit to himself and his employers. Such a system would be no ineffectual barrier against the aggression of those leveling doctrines which, at the North, are so foully blotting the page of social life; but it is enough to suggest a thought which will be readily appreciated by all who coincide with the present writer in his views as to the duty and interest of the South in the present exigency.

Mainly, the task of remodeling the negro must be performed by the agriculturists; it is for them to exercise the attractive power of patient and persevering effort to place the negro on a platform upon which he will feel that he rests securely in the possession of his "rights," and that a status in the South is secured for him, in which he can "live and move and have his being" as a *freeman*, to fulfil, without let or hindrance, the destiny "God over all" has appointed for him.

I submit, Messrs. Editors, the above remarks to your judgment. They are, I am quite aware, very crude, and yet, possibly, they may supply the raw material, which pens more gifted and facile than mine may discuss with profit at the present crisis. If you think so, let them appear in the "Farmer"—if not, your waste-basket can provide them a permanent lodging.

SPECTATOR.

South Carolina, March, 1873.

Tobacco Culture in New England—No. 4.

Messrs. Editors of the American Farmer:

TRANSPLANTING.—We like to bring the plants forward so that they will be strong and stocky, ready to plant out early in June, yet it often lingers along till the later part before all are out, and then the re-setting of failures, worms, &c., must be done afterwards. If we can get our plants well started, a perfect stand, in June, there is generally time for the maturing of the crop before fall frosts, yet the earlier in June the stand is made, the more certain the crop and the better it cures.

The fresher the ground can be prepared previous to transplanting, the better the plants take root and the less the work to make a stand, except from worms. We usually select a moist or wet time for transplanting, provided we have such weather at the right time; if not, we plant as the plants attain suitable size, &c., regardless of the weather, water out if dry. A good deal of the after success of the crop depends upon the care taken in transplanting, therefore it is an object to perform this part well. If the transplanting is done in a dry time, the plant-bed is well watered from a rose sprinkler, so as to soften the ground, that the plants may be drawn easily. In drawing the plants we take a pointed stick, or like, and run down beside the roots, pry to loosen, and pull out the plants by the leaves, dropping them into a basket; we go over the bed, selecting the best and largest plants, drawing them carefully not to injure those left, for in a few days these will grow, to be again selected from, till we finish transplanting; after pulling the plants, the bed is again watered, as at first, if dry or it does not rain. The plants are taken to the field and dropped out, one plant to each hill, by boys, and setters follow closely to set the plants; it is hardly necessary for me to describe this minutely, merely to say, the roots are properly placed in the soil, and that compressed about them; thus doing, the plant stands with the soil a little dishing about it, which favors the retention of moisture about the roots; if set when dry, the plants are well watered after setting, and if properly done, the plants readily take root and grow; in some cases, when the weather is very dry, a small sprinkling of plaster (gypsum) is given each plant in addition to the water; this serves to attract, or hold, the moisture, and keep the plant fresh.

WORMS.—Hardly have we got the plants set in the field before the cut-worms—larvæ of the *Agrotididæ* moth—is looking for them, and what is more, is pretty successful in finding them, to the no small annoyance and cost of the planter. The only remedy is, to hunt them out and destroy them, and re-set plants destroyed by them; this must be done so long as the worms work. These worms have hardly done working before we have the green tobacco worms; here larvæ of *Sphinx quinquemaculatus*; at the South, *Sphinx Carolina*—both of similar habits and resemblance.

Some seasons these are more destructive than others. These worms must be kept off the tobacco by some means—the most practical of which is to hunt them out and kill them, at the same time looking for and destroying the eggs, which are laid singly on the under side of the leaves, about the size of a small pin head, oval in shape and a little lighter green than the leaf on which they are laid. In hoeing, topping, succoring, cutting and harvesting, and at frequent intervals between, from their first appearance, they must be sought out and destroyed. Very much can be done in prevention by destroying the moths by poison and other modes; a little cobalt dissolved in sweetened water, and a drop or two dropped in tubular flowers, such as the moth frequents, or a little placed in clam shells, set on stakes in the field, will generally be the means of quieting numbers. There is a sort of yellow wasp, or hornet, which captures the young worms before they get to be over about an inch in length; they roll the worm into a ball and carry them off to feast on them; in some instances they will keep a field nearly clean of these worms. In all stages of the crop these worms must be kept off, as they will injure the value of the tobacco largely, if left to their own way.

CULTIVATION.—In the course of four to six days after setting, the plants will show they have taken root; the field must now be cultivated, to give the plants a start and to anticipate weeds, &c. No culture of the plant equals the hand hoe, judiciously used; a corn harrow or cultivator may be run between the rows, to pulverize the soil, destroy weeds, &c.; then use the hoe around and between the plants. The main part of the first hoeing consists in leveling off around the plants and between, stirring the soil close to the plant, but very little, just brushing the surface, to freshen the soil; yet the culture should be thorough of its kind. In about ten days, or two weeks at farthest, the culture should be repeated; this time the soil may be renewed about the plants and a little addition made, using every care not to injure the bottom or other leaves, in hoeing, &c. The hoeing and culture is repeated for the third time in about two weeks from the second; the soil about the plants and in the rows is slightly raised above that midway between the rows, yet so little, that many would say it was level culture. The plants will have attained a size which will forbid the economy of passing between the rows with the horse and cultivator, therefore all weeds, &c., must now be kept down by the use of the hand hoe alone. This horse cultivating between the rows and hand hoeing of the plants, conduces to a steady and rapid growth of the plants, which is essential to even, fine quality, and early maturity. The hoe must be used as the weeds grow, always remembering that the judicious use of the hoe, stirring the soil, &c., conduces to the benefit of the crop, up to its maturity even.

W. H. WHITE.

Wheat on Corn Land Subsequent Management—Sowing Grass Seed and Manuring.

To the Editors of the American Farmer :

Having given you my mode of cultivating a sod field in corn, which was seeded to wheat last fall, I now proceed (as intimated) to state the manner in which I shall dispose of the field. After the crop of wheat is harvested and secured, I shall turn my hogs, &c. on the field until all the wheat left upon the field is picked up; I shall then plough it up to be seeded to wheat next fall, turning the land to the depth of seven or eight inches. On the smoothest parts of the field I shall use the drill, aiming to seed $1\frac{1}{2}$ bushels to the acre, with about one bushel plaster to the acre; the roughest portions of the field to be harrowed, or ploughed in with the shovel plough; and so soon as the wheat comes up, (when harrowed or ploughed in,) I shall sow one bushel of plaster to the acre. Immediately after the wheat is sown, (and before it rains,) I shall sow about one and a half gallons of timothy seed to the acre, and in the following spring about one gallon of clover seed to the acre. Should I succeed in getting a good "stand" of grass, the field will be kept for mowing so long as I can get a tolerably good crop from it; say from a ton to a ton and a half of hay to the acre. Each succeeding spring I shall continue to sow a bushel of plaster to the acre on the field. In about two years the clover will measurably disappear, and should the season be good, the timothy will thicken up and fill its place. I generally let the first crop of timothy ripen before mowing, as much of the seed, in handling the hay, will shatter out, and give me a better stand the ensuing year. My fields managed in this way, will last some four or five years for making hay, after which they begin to fail; and as the timothy fails, the vacancies are generally succeeded by blue grass, which gives me a good grazing field for cattle or sheep. If the seasons are favorable, I can graze a field thus managed some six or seven years after I quit mowing it.

The lot of 15 acres cultivated in corn last year has been seeded this spring in oats; I have also sown on it, one gallon of clover seed and one bushel orchard grass to the acre. As soon as the oats make their appearance, I shall sow one bushel of plaster to the acre on the lot, hoping to get a good stand of grass, to be kept for mowing and late fall pasture for calves.

My usual custom of managing a field that has been in corn, is to seed it in wheat or rye, sowing clover seed on it the following spring, and let it remain two years in clover, to be grazed lightly the first year, the second year to be grazed more closely, and the cattle to be penned on the poorer spots, and the pens to be moved so soon as the land is sufficiently manured. It is then ploughed and seeded to wheat, and about one gallon of timothy seed to the acre, to be sown after the wheat is put in and before it rains. A field thus treated

will have an abundance of volunteer clover on it, which, with the timothy sown, gives me a good pasture.

Our farmers are behind with spring work—no ploughing done before 1st April—some not yet done sowing oats.

Most respectfully, PIEDMONT.
Rappahannock Co., Va., 10th April, 1873.

"What Shall We Do?"

To the Editors of the American Farmer:

The question "What shall we do?" being capable of so many different solutions, it is rather hard to hit upon the very answer itself, and though many of your contributors have attempted in various ways to answer it, yet none have done so, Mr. Newton himself so deciding. I shall not, in this communication, attempt anything of an answer, yet I can remark upon some things which should not be left undone. I conceive the most important thing which now claims our attention is, that we ought to become farmers in the proper acceptance of this term. A discrimination here is necessary, because many consider themselves as farmers who are not. It is this idea I wish to remark upon, and by doing so, may arrest the attention of some. I divide the farming community into farmers proper and land-workers. Every one who is cultivating the soil is by no means a farmer. But, then, who is the farmer? He is one whose leading thought is the improvement of his farm. This includes everything pertaining to the farm, such as the most improved method of cultivation, the best farm implements, the best breeds of horses, cattle, and so forth. In connection with this, system and management should by no means be left out, since these, as elements, enter largely into the whole business.

The real farmer does not aim so much to make money, that is to get all out of his farm possible, but to increase his capital in the form of rich land and a homestead, where comfort is abundant and the surroundings of which exhibit a refined taste. Farming thus conducted expands the mental powers, tones up the moral sense, enlarges the mind, reveals the hidden powers and secrets of Nature, and brings man into that connection with his Maker, which renders him happy, benevolent, kind and good. It reconciles man to the toils, hardships and struggles of life. It smooths his pathway and makes him rejoice in the good things around him as the rewards of a well spent life. To such an one the world does not seem half so bad as it really is, and Nature greets him with her smiles at every turn. Whenever you see this farmer, his spirits are never depressed. He is indeed and in truth Nature's gentleman. The farmer, then, is not a mere tiller of the ground: far higher motives and aspirations actuate him; a nobler ambition leads him on and upward; and a grander work he aims to accomplish. The improver of the soil is paid back in abundant harvests, well stored barns, and in the

luxury of a happy home. But this system of farming, while it enriches the farmer, also improves him, if I may use such a term. It has that peculiar influence upon him so marked and well defined, that it contradistinguishes wherever seen. If Mr. Newton's question has special reference to the farming interest, I conceive it will be finally answered when all the tillers of the ground become farmers in the true sense of the word. But whatever subjects his question may be intended to include, one of its conditions must, beyond all doubt, find a solution in this. If this, then, be so, you, Messrs. Editors, have been a long time engaged in solving his question in your department. And though a mighty work yet lies before you, you have the consolation of knowing that many have become farmers through your instrumentality. The *Old Farmer* holds up to view the ideal model cultivator of the soil.

A glorious work, this, to educate a people with regard to the true idea of cultivating lands. Agricultural education, the true method of farming, is the need of the times, for with this comes plenty and to spare; and of course complaining, poverty and want will be at an end. The question "What shall we do?" will signify but little, so far as the farming interest is concerned, when all become farmers. The first element, that which rises above every other consideration in farming, is the improvement of the farm. To enrich the land is the Alpha and Omega of the whole business; and no man can begin to rise to the distinction of a professed farmer who does not make the improvement of his farm and the enriching his land of the first importance. It is the root and the branch, and nothing can compensate for it. A land worker he may be, he will be, and it is all he can be. As I have already made this article too long, I will take up the subject in another, and discuss the other division of the question. W. H.

Calvert Co., Md., April 9, 1873.

Influences affecting Climate—Clubs, &c.

Messrs. Editors American Farmer:

I must beg of you the favor to send me a duplicate copy of the last *Farmer*, as I have mailed mine to the Farmers' Club at Milford, Kent Co., Del., where I was invited to lecture last week. S. Wood, Jr., their secretary, and J. W. Causey (the son of the Governor) met me at the cars, and we visited the model farm of the neighborhood, which will compare favorably with any I have seen elsewhere, in all respects. The proportion of "black buds" on the peach trees, from the extreme cold of the winter, was decidedly less than in our vicinity—but the advance of the buds on the 18th March exceeded our prospect for a month to come, as they have more of the temperature of the gulf stream and ocean at this season, whereas we are favored with the ice water from the Catskill and highlands of N. York, which being the surface water at the head of

Delaware bay, embraces our orchard several times every day in the spring, and retards not only peach buds, but corn, for several weeks. Water is lighter when below 36°, and thus we escape the late frosts, and never fail of a peach crop, while all others are discouraged. The accumulation of snow and ice at the West and North will render the crop on this peninsula extremely precarious, and again test our theory as it did several years since.

One of my sons (who is an experienced practical farmer) suggests to me that the "white oak soils" of our county—contrasted with the pine lands of Kent and Sussex—may aid in accounting for the delay of vegetation in the spring. The low temperature of the winter is husbanded by the clay, which is one of the most perfect of all the non-conductors, having 20 or 30 per cent. of sand only, whereas some soils leave 40 or 50 when washed—still it is questionable whether we can afford to sell stable manure from our best grass lands—but the prices offered by Jersey men take it away to where it pays better. The cold clay soil must always afford an indication for selecting the latest varieties of the peach which are the first to blossom and cannot pay elsewhere.

About a year has elapsed since I made my maiden speech at Dover, Delaware. Essays of this kind are laborious in proportion as they are valuable or the result of long experience and observation, endorsed by practice. This is the excuse for neglecting to send you a copy, (which you requested), and which was also solicited by the Agricultural Society.

Your senior was associated with my boyhood in Baltimore. Since that period we have noticed a reduplication of her population several times, and must again anticipate that this peninsula will be embraced like the heart by the lungs in seven millions—if the cities of New York, Philadelphia, Baltimore and Norfolk increase in the same ratio during the next two or three septentrions. This embrace (by the lungs of commerce) indicates our specialty as agriculturists, and reminds me of the advice I gave my young friends in "Queen Anne's" more than 20 years since, when the old Gov. Wallcott steamboat sufficed to connect with Baltimore once a week.

Every school district should organize a farmers' club, and be represented *as such*, not least once a year, in the county or state society, by at least two delegates; otherwise, the only successful farmer will be the one who sells all his products from his own team, on the one hand, or the millionaire who can control intelligent labor and live upon less than six per cent. of his investment, or economize by controlling and owning public agencies.

DAVID STEWART, M. D.

Port Penn, Del., March, 29, 1873.

Mr. Ro. L. Sibley, of Matthews Co., Va., is duly authorized to act as an agent in procuring subscriptions for this journal.

Jersey Cattle—Clover in South Carolina.

To the Editors of the American Farmer :

I am puzzled what to think about my Jersey heifer. She has never been in heat, so far as I know, though my little nephew told me a few days ago he saw some indications of it. Her bag grows, and is now as large as some scrub cows that have calved. She gives milk, and I would be glad to know whether it would be best to have her milked or not. Her belly looks no larger than it did a month ago, and her bag looks as if she would calve in a week. I have allowed a motherless lamb to suck her, which it does readily, to its great comfort, apparently.

I once owned a Devon heifer which gave a thin, watery milk, at six months old, but this one's milk looks yellow and rich. Is it usual for this breed to give milk before calving?

I am so pleased with the little heifer I hope to be able to get two more next fall—and in order to induce others to get them, have offered the use of the Jersey bull to such of my neighbors as will bring out a cow of that breed.

I sowed one bushel orchard grass, six quarts timothy and six quarts of clover in October last, the 7th day; on the 9th clover and grass were coming up. The land was well prepared and I got a fine stand. The winter was a cold one, but since the spring has opened we have had unusually fine weather, just rain enough to make the land plough well. The grass looks beautifully and covers the land well; it is now from two to four inches high and looks like a wheat field, but the clover is either smothered or dead, but little can be seen. My friend, Mr. Evans, seeded 30 acres of clover in September and got a fine rise, but tells me his has died out, too. What can be the reason, and how would it do to sow clover seed on the grass next fall and harrow it in? I am very sorry to give such an account of the clover, as our experiments were watched with much interest. My clover was put on very stiff land, but thoroughly prepared; Mr. E.'s on the best quality of land on the river bank; his was seeded but not covered, and he thinks a hot spell we had the last of September and early in October may have killed his. Mine was covered with the Thomas Smoothing Harrow, and the land is now as soft as an ash bed. I left nothing undone that I thought would insure success. I hope for better luck next fall, for I can prepare no better than I did last fall.

I have put in three acres of clover and grass on a piece of thin upland, part of it sandy and part a stiff clay, well drained—the first seeded in October, the last in February and March. I do not expect much from these lots, but am anxious to see the result of my experiment; the clover on these lots has died out, too, after getting up well.

We have had the thermometer for some days over 90° in a passage of a large house,

far from the reflection of the sun. Corn is up and rye in head.

Yours truly, JOHN WITHERSPOON.
Dartington Co., S. C., April 7, 1873.

[We have known of some cases where Jersey heifers have given considerable milk before calving, but cannot say that it is a peculiarity of this breed over others. This heifer ought to be milked, or there will be trouble with her udder. The course suggested for the re-seeding of the clover in the fall is the one most to be commended, we should say. In this latitude we should re-sow now, but it would probably be too late in the section of our correspondent.—Eds. A. Fur.]

The Tare or Vetch.

To the Editors of the American Farmer:

This valuable plant is cultivated to great extent in England, and to some extent on the continent of Europe, in China and Japan. Ray observes, "that it was chiefly used in England, mixed with peas [in this country we would substitute corn for peas] and oats, to feed horses; but that it was sometimes sown separately for soiling. The variety of tares are chiefly two, the winter and spring tare. It is evident that the seeds of the two sorts ought to be kept separate, since each sown out of its proper season is found not to prosper. In choosing between the spring and winter tare, everything must depend on the intention of the crop. If the intention is to have an early feed, the winter variety is to be preferred; but where a late crop is desired, or a crop for seed, then the spring variety will deserve the preference."

"The soil preferred by the tare is a clay, but they will grow in any rich soil not over dry. In a moist climate, the haulm grows so luxuriant as to rot at bottom, and one over dry is deficient in length. The winter variety is sown from the last of August to the first of October, and the first sowing in spring as early as the season will permit. If they are to be cut green for soiling throughout the summer and autumn, which is the most advantageous method of consuming them, successive sowings should follow, till the first of June.

"Summer tares, when meant for seed," Brown observes, "ought to be sown early, otherwise the return will be imperfect; but for green food, any time between the first of April and latter end of May will answer well." In our Northern States no winter sowings ought to be made, as the tare will not endure the severity of a northern winter. "The mode of sowing tares is mostly broadcast, the seeds being covered in the proper harrowing." The gang plough, made to cast three, four and five shallow furrows, is preferable to the harrow, and 'tis the most valuable implement for covering the cereals, tares,

&c., known. "A light roller ought to be drawn, so that the surface may be smoothed," and the harvesting machine permitted to work without interruption. "The quantity of seed to an acre broadcast is two and a half to three bushels; but in the drill, or the crop to mature, half that quantity will be sufficient." From trials made it is ascertained, it is said, that the quality of the tares is vastly improved by being blended with beans, as, by clinging to the latter they are kept from the ground, and enjoy the full benefit of the sun for ripening them in a perfect manner; and they are in this way much easier harvested than sown by themselves." "A little rye sown with winter tares, and a few oats with the spring sort, not only serve to support the weak creeping stems of the tares, but add to the bulk of the crop by growing up through the interstices."

The English author evidently alludes to the horse bean to be sown with tares; in the U. States the horse bean does not succeed. The best substitute that I know of is the Japan pea, which grows on a stalk two to three feet high, and from the little practical experience I have had with the plant, I am convinced that 'tis one of the most valuable for forage. "In the choice of seed it is hardly possible to distinguish the grain of the winter from that of the spring variety; the only reliance must be on the honesty of the vendor." The firm of J. M. Thorburn & Co., John street, New York, are large importers of seed, and reliable men.

"When tares are mown early, they will, in a favorable season, produce three mowings, but generally two." "The produce of tares cut green is, according to Middleton, ten or twelve tons per acre, which is a large crop; when made into hay, about three tons per acre, which shows the disadvantage in making these crops into hay." Curing tares requires as much care as clover, but, like clover, they ought to be half cured and mixed with alternate layers of wheat or oat straw; the rich gasses ascending from the tares renders the whole mass as valuable for feeding cattle as well cured tares, and at a saving of about 40 per cent. The mixture of straw also prevents firing. "Product of seed about forty bushels per acre."

"In the application of tares they are found to be a hearty and most nourishing food for all sorts of cattle." The following interesting remarks relative to the tare I find in Loudon's Encyclopedia, page 843:

"Cows give more butter when fed with this plant than with any other food whatever. Horses thrive better upon tares than they do upon clover and rye grass;—[it is generally admitted by American farmers that orchard grass is preferable to all others for mixing with clover]—and the same remark is applicable to the fattening of cattle, which feed faster upon this article of green fodder than upon any kind of grass or esculent with which we are acquainted. Danger often arises from their eating too much, especially when pod-

ded, as colics, and other stomach disorders, are apt to be produced by the excessive loads which they devour. Perhaps a great quantity of fixed air is contained in this vegetable, and as heavy crops are rarely dry at the root when cut, it is not to be wondered that accidents often happen, when the animal is indulged with the unrestrained consumption of them. Were oat straw mixed with the tares in the racks or in the fold yard in which they are deposited, it is probable that fewer accidents would follow, though this resistant is only required when the tares are wet, foul or over succulent. If the plants are cut green, and given to live stock, either on the field or in the fold yards, there is, perhaps, no green crop of greater value, nor any better calculated to give a succession of herbage from May to November. The winter-sown tare, in a favorable climate, is ready for cutting before clover. The first spring crop comes in after the clover must be all consumed or made into hay; and the successive spring sowings give a produce more nourishing for the larger animals than the aftermath of clover, and may afford green food at least a month longer. In the county of Sussex, Young observes, 'tare crops are of such use and importance that not one-tenth of the stock could be maintained without them; horses, cows, sheep and hogs, all feed upon them; hogs are soiled upon them without any other food. This plant maintains more stock than any other plant whatsoever. Upon one acre, Davis maintained four horses in much better condition than upon five acres of grass. Upon eight acres he has kept twelve horses and five cows for three months without any other food. No artificial food whatever is equal to this excellent plant.' This statement must be coupled with the usual produce of turnips in Sussex, 10 or 15 tons per acre: hence the supposed superiority of tares to every other green crop. Tares cut green, Professor Thier observes, draw no nourishment from the soil whatever—while made into hay, they afford a fodder preferred by cattle to pea straw, and more nutritive than hay or any other herbage."

"The use of the grain of tares is generally for reproduction; but they are also given to pigeons, by which they are highly relished, and it is thought they would prove a very good food for poultry."

It will be noticed that I have drawn largely on English authorities, which appear practical, and doubtless will be read with more interest by your readers than a speculative article from me. The tare is scarcely known or appreciated by Americans, caused probably by farmers reading the 18th chapter of Matthew. It may be that the tare spoken of in the Scriptures was a wild, noxious weed.

PLOWMAN.

[We believe tares have been occasionally grown in this country, but we have no direct knowledge of any experiments with them. We should think the heat and dryness of our summers would be against their success here.—Eds. A. F.]

Scotch Broom.

To the Editors of the American Farmer :

I send per steamer Vanderbilt to-day, as promised, to care of my brother-in-law, G. F. Eubank, a portion of "Scotch Broom," (at least known here by no other name,) which tradition says was first planted on this farm considerably over one hundred years ago, by a Scotchman by the name of Dr. Nicholas Flood, for his sheep. You will oblige me if you will ascertain if it is identical with the "Furze" to which you have been calling attention in your "Farmer."

It is evergreen, a very hardy plant, delighting in light, gravelly, poor soils, especially on hill-sides from which the surface soil has been washed, and very soon covers the ground with a growth so dense as to be almost impenetrable for man or beast. I have lived on this farm over twenty-two years, and have reclaimed a good deal of land once covered by it; I find the poor hill-sides, from which the surface soil was washed, after having been covered a few years by this growth, produce luxuriant crops of wheat and corn, its fertilizing property, while due to the shade and vegetable matter covering the ground, I think is enhanced by the oily character of the seeds.

Very truly yours,
E. D. BOOKER,
Farnham P. O., Richmond Co., Va., March 25.

[The Scotch broom, *Genista scoparium*, of which Dr. Booker sent us a specimen, belongs to another botanic family from the Furze, *Ulex Europæus*, and so far as we know, has no economic value; though if its ameliorating effects on poor soils are those described by our correspondent, it would seem to deserve attention on that account.—Eds. A. Far.]

Experiments with the Grasses.

Editors of the American Farmer :

I have your esteemed favor of yesterday, and with it the package of seeds, for which please accept my thanks. I have very lately finished sowing on an experimental plot in my garden, seeds of the Italian and perennial rye grass, highland meadow oat, lucerne,—which I tried once before; I doubt if it will suit as stiff land as mine,—and Alsike clover—hybrid clover; but I will add your seeds to the list and report progress on them all. I have besides two acres in two different kinds of soil in highland meadow oat. I have been late in all of them; but our spring has been late, and the ground so saturated with the incessant rains that have fallen since the last of November, until now, when we are threatened with a drought, that I could not get on the land any sooner. But after all I doubt if on my land, or any other stiff clay or clay loam, wet or dry, in Virginia, we shall find anything better than those old standards, the clovers, red and white, timothy, herd grass and orchard grass; certainly, unless we can raise

them, we cannot use any other, because the price is so high. By the way, can you tell me what makes orchard grass so high priced? What is the mode of threshing it? And whilst I am asking questions, can you tell me why Canada lambs are quoted so high in the New York market? What is there peculiar about them? Again thanking you for the seeds, I remain your ob't servant.

FRANK G. RUFFIN.

Summer Hill, Chesterfield Co., Va., April 10, '73.

P. S.—What is Serradella? I cannot find it in my books.

[Serradella is the common name of *Ornithopus Sativus*, Persoon. It belongs to the same group of plants as the beans, etc. Lindley, in his Vegetable Kingdom, p. 547, mentions it as a well-known "fodder plant," and includes it with others "with nutritious, or at least wholesome qualities." It is indigenous to the sea coast of Portugal, was introduced into Great Britain in 1818, is an annual, grows to be three feet high, and flowers in June—July.

The dealers in seeds claim that, considering the trouble in cleaning orchard grass seed, owing to its light weight, its ruling price in the market is not unduly high. It is generally threshed with the flail.

We cannot answer the question about Canada lambs. Perhaps some of our readers can.—*Eds. A. F.*]

STEAM REAPER AND MOWER.—Mr. Edw. Hayes, of London, (Eng) has patented a new steam reaper and mower, which is thus described by the "Iron," an English journal:—

"The implement consists of a boiler and steam engine, erected on a light wrought iron girder frame, the whole being carried on four wheels, of which the two hind wheels are utilized for propulsion, and the two fore wheels for steerage and for carrying the cutting apparatus from off the ground. The boiler and engine are especially designed to develop a maximum of power with a minimum of weight—and the steam is used at a pressure of 120 lbs. to the square inch in the boiler. The piston speed is high, and is applied by suitable intervening mechanism to the double motions of actuating the cutter bar and propelling the implement by means of the driving wheels. The storage room for fuel and water is very limited, and arrangements must be made for supplying the tender with these requisites at suitable localities. The machine is worked by two hands, a man to steer and a boy to attend the fire.

"This entirely novel invention is self-propelling, and altogether its weight does not exceed that of the combined reaper and mower in every day use."

The Dairy.

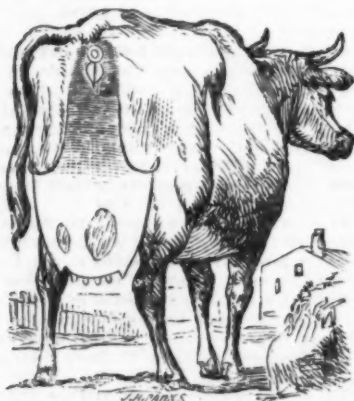
Guenon's Method of Determining the Milking Qualities of the Cow.

To the Editors of the American Farmer :

In compliance with your request I will endeavor to give, for the columns of the *Farmer*, some account of Guenon's method of telling the milking qualities of cows. Guenon was a Frenchman, and completed his discovery more than thirty years ago. It has been about twenty-four years since it was first announced on this side of the Atlantic. As might be reasonably expected, people were very slow to investigate a thing that seemed to promise entirely too much to be true, and many of those who did take the trouble to look into it, were repelled by the formidable array of classes and orders, and the minutiae of detail that encumbered Guenon's treatise. He divided cows, by his system of signs, into eight classes; each class, into eight orders; each order, into three sizes, which made one hundred and ninety-two divisions; and to this he added eight classes of exceptions, called Bastards, which ran the divisions up to exactly two hundred! The quantity of milk that each of these two hundred divisions would give, and the length of time they would give milk after becoming with calf, was all recorded with the scrupulous care of an enthusiast, and ranged from twenty-four quarts a day to almost none; and from milking plump up to the next calving, to not milking any after becoming with calf. It happened to this part of the country that my brother, Dr. Ellwood Harvey, of Chester, Pa., had recently completed his medical studies, and being accustomed, as I suppose, to examine matters in minute detail more fully than his agricultural brethren in this quarter, was not repulsed by the multiplied intricacies of the system, but took it in hand, studied it, tested it and taught it to his neighbors, many of whom were dairymen of the Philadelphia market. I believe no one ever doubted the truth of the method after he had once visited their cows with them, and had pointed out, by the "method," the qualities of their different cows. I, with many others who became thus interested in it, bought the treatise, which was translated by Nicholas P. Trist, of Nicaragua memory; but the complexity of the details was so discouraging, that very few pursued the study to a full understanding of it, though a general belief of its truth has continued to exist in Delaware and Chester counties among dairymen, and a few have depended upon it fully, with very great advantage to their business. Indeed these have made it pay.

Now this may seem somewhat discouraging to your readers, but with all due respect to Guenon, to whom all honor and praise should be accorded for his brilliant discovery, I think that it may be so simplified that every farmer, dairyman and dealer can learn it all in a short

time, and may find the study quite interesting. I began it laboriously, supposing that a mastery of all the details was necessary to make it of any use, but more than twenty years of constant application in practice has simplified it to my mind, and has added a little, I think, to the original discovery. The substance of the discovery is, that the milking qualities of any cow, of any breed, are indicated by an outward sign that all may see and easily understand. The hair on a cow, as on other animals, grows downward on the hind-quarters, but there is an exception to this rule on the back part of the udder, where it usually grows upward. The first lesson for a beginner is, to notice this fact. Let him stand behind a quiet cow and rub the hair on the udder both ways until he sees just what I mean. Guenon called the surface that is covered by this upward growth, the *escutcheon*; others have called it the milk mirror; but this is no improvement in any respect, and I shall name it as Guenon did, for there is no real objection to that name, and there is serious objection to making confusion by calling the same thing by different names. The *escutcheon*, then, is that surface on the cow's udder where the hair grows upward. But it is not confined to the udder, it extends upward above the udder, often to the vulva, and outward upon the thighs on both sides of the udder. (See Flanders cow, class 1st, order 2d, figured below.) These *escutcheons* are different in size, in shape and in quality—(quality means the quality of the skin and of the hair growing on it)—and these differences indicate the different milking qualities of the cows, including quantity and quality of milk, and the length of time they will give milk after being with calf. Where the upward and the downward growths of hair meet a feather is formed, and this is most conspicuous on the back part of the thighs where the



escutcheon extends that wide. If the hair is long, as it generally is in winter time, the observer can define the limits of the *escutcheon* better by applying his hand and smoothing

the hair to its natural place. He will now perceive that the hair on the *escutcheon* is shorter and softer than elsewhere, as well as turned upward in its growth, and sometimes nearly resembles fur.

Let us now particularly consider the shapes and sizes of these *escutcheons*. There is one general shape to which they conform, and that is that they are wider below than above, and at or near the top of the udder they narrow in abruptly, some continue up as far as the vulva, and even above it, and others but a little distance above the udder, (see the figures.) The size and shape of this upper part of the *escutcheon* is of less importance than that of the lower part, but both must be considered—the larger the *escutcheon* the better. All great milkers have very large *escutcheons*. In large ones the upturned growth often begins on the belly in front of the udder, extends along between the teats and up the back part of the udder over the whole width. Indeed the udder is not wide enough for it, and it encroaches on the thighs, where we may find the hair having an upward growth on them, inside next the udder, beginning not far above the hock joints, and running up as high as the wide part of the *escutcheon* extends up the thighs, and which often terminates with corresponding curls in the hair at the outlines, and the higher up and wider these are apart the better. Though the extension of the *escutcheon* to the front part of the udder on the belly has been mentioned, that is not a matter of practical interest in ordinary cases. All that needs to be studied is plain to be seen by standing behind the cow. When the *escutcheon* is small it does not reach the thighs, and often does not cover the whole of the back part of the udder. These differences in size can be distinguished at the first lesson taken in the cow yard, and when that has been done, the next thing is to consider their shapes. A good *escutcheon* is symmetrical. The feathers on the two thighs are at equal distance from the middle line of the body, and extend up to equal heights on the back parts of the thighs. A broad and high *escutcheon*, (speaking now only of the lower broad part of it) that is *alike on both sides*, certainly indicates a superior milker. There is nearly always another sign accompanying such an *escutcheon*, and that is one or two *ovals* just above the hind teats, on which a *fine* coat of hair grows downward. These may be large or small, may be one or two, and may be alike in size, or unlike, but they are always good signs. Two are better than one, and the larger and more uniform they are the better; they are almost always present on large and symmetrical *escutcheons*. No *escutcheon* is ever first class if it has not one or both, and one at least, of good size. What constitutes "good size" will be better learned by a few observations than can be taught by inches, and I want to leave something to the ingenuity of the learner, to make the study interesting.

Now let us consider the shape and size of that part of the *escutcheon* which I have

spoken of as the upper part; that is, the narrow portion that has its base on the top of the lower and wider portions, and runs up toward the vulva. Sometimes, though very rarely, this does not exist at all. Sometimes it is broad and extends all the way up with perfect symmetry. Sometimes it terminates in a curved line at a greater or less distance up; and indeed it may be seen of almost any shape. As a sign of excellence, the larger and more symmetrical it is the better—but a good *lower* part of the escutcheon is the main thing, and that, as a sign, can hardly be vitiated by any imperfection of the upper part. When the lower part is very good, there is usually uniformity in the part. A poor escutcheon is one that is small, or that is imperfect in form.



A common imperfection is a deep notch of a downward growth of coarse hair, at the point where the lower part ends and the upper part begins, (as in figure of *Selva* cow, class 2, order 2, as I have indicated on the cut above by dotted lines.) This may be on one or both sides, and detracts very much from an otherwise good escutcheon. I have seen several first-class cows that had what appeared to be a very deep notch of this kind, and it was a long time before I could reconcile their known excellence with such an apparent imperfection in the escutcheon. The explanation came to my mind when I noticed that the notch was not covered with the coarse hair that belongs outside of the escutcheon, but with the soft, short, lighter colored hair that was peculiar to the ovals; for please remember that the hair on the ovals grows downward like the outside hair, but is soft and short; and what at first appeared to be a deep notch from the outside of the escutcheon, extending down and spoiling its proportions, was really a large oval, extending up until it reached the outer border of the escutcheon, and was a sign of excellence. This discovery was a great relief to my mind, for the apparent discrepancy between the form of the escutcheon and the proved quality of the cow,

in all such cases, puzzled me and lessened my confidence—not in the correctness of the method, for that had stood too many tests to be doubted, but in my ability to apply it with certainty.

Other imperfections of a similar character, that is, blemishes of form, occur in considerable variety on both large and small escutcheons. They are all certain evidence of a diminished value of the cow as a milker. A small and imperfect escutcheon on a good cow, is something I have never yet seen.—Any want of symmetry in the form of an escutcheon is an imperfection. The two sides should be alike. A small but perfect escutcheon may be better than a larger one that is imperfect. A very good one is both large and perfect.

Thus far we have considered the escutcheon in reference to its form and size alone, and may now say, that the quantity of milk depends on these, but its quality is indicated by other signs, which we find to a great extent in the same place. It is too well known to require any assertion, that some cows give a large quantity of very poor milk, and others an equally large quantity of rich milk. It is equally well known that some cows give but little milk, though they yield a good quantity of butter; and I repeat, that the signs indicative of these differences of quality are found in the escutcheon, and they are easily recognized. If the skin in the escutcheon is soft and oily, and particularly if it is of a rich yellow color, (though this is more easily seen by examining the end of the tail,) suggestive of "gilt-edged" butter, that cow will give good milk. In such cases we will find her hair soft and short. There may be some long hairs, too, but the undergrowth will be as mentioned, and often has almost the quality of fur. But if, on the other hand, the skin is white and dry, and the hair thin and harsh, the cow gives poor milk. If her escutcheon is large and symmetrical, she may give a large quantity of poor milk. The form and size of the escutcheon indicate *quantity*, the skin and hair indicate *quality*. These signs are true also as applied to bulls, being in such cases a proper guide in the selection of animals to breed milkers from. My own experience and observation, which has been considerable in the matter, convinces me that cows inherit their milking qualities more from their sires than from their dams; and it is probable that many of your readers who have been disappointed in heifers raised from some favorite milkers, will be disposed to agree with me. If this be true, then the Guenon method has an application that must prove valuable to those who breed cows for dairy purposes. Another interesting fact is, that we can discover all the signs on a calf, and are thereby enabled to select with much certainty those that are fit for the dairy, and to reject those that would be only a disappointment, if raised for that purpose. Of course, a very small cow, with ever so good an escutcheon, cannot be expected to give a very large quantity of

milk, and might be inferior in that respect to one having a less perfect one, where the animal is of greater size. But in such cases, the small cow would give much more in proportion to the cost of keeping. In all cases, therefore, the size should be taken into account.

There is a sign that may be mentioned here, (though it does not properly belong to the Guenon system,) which is a very certain evidence that a cow will give a large quantity of milk, though it expresses nothing in relation to quality. It is the large size of the vein running forward from the udder, on the belly, and just under the skin. This is called the milk vein, and when it is very large and crooked, and enters the abdomen through a hole that will allow the entrance of a man's finger, it is, I repeat, a sign that the cow will yield a large quantity of milk.

The time that a cow will continue to milk after she is with calf, varies in different cases—some ceasing almost as soon as pregnant, and others milking up to calving. Generally the best milkers milk the longest. Hence it follows that a good escutcheon usually indicates continued flow as well as large quantity. Those escutcheons that are not large at the base, but that run up to the vulva symmetrical all the way, and pretty wide, indicate a yield of milk up to the time of calving.

And now, patient reader, if you wish to verify these things by your own observation, go into the cow-yard, with the *American Farmer* in your hand, and you can probably tell at once the best and worst cows, both as to quantity and quality of milk. And after accomplishing this much, do not imagine that the thing is true in a general way only, and that you have mastered it all, but continue to study and apply it, and you will surely discover that the system is very valuable, easily understood and as easily applied in practice.

C. HARVEY.

Chadd's Ford, Delaware Co., Pa.

ENGLISH AND AMERICAN BLOODED STOCK.
—The Live Stock Journal considers it as the most gratifying fact that in the interchange of Short-horn blood between Britain and the U. S., equally high prices have been paid by British breeders for American bred animals to go back to England to reinvigorate the same blood from which they sprung, as have heretofore been paid by American purchasers. The 8th Duke of Geneva, 7935, A. H. B., bred by Mr. Sheldon, of Geneva, N. Y., and sold by him to Messrs Harward & Downing, of England, for 800 guineas, delivered on shipboard in New York, was last year sold by them at a public sale of their herd for 1650 guineas; and the highest prices for some years past obtained in England for Short-horns, have been for the produce of cattle exported from this country. Can a higher commendation be given to the skill of our American breeders, than that the world's best judges should pay \$8000 for a single animal!

The Apiary.

Wild Criticism.

To the Editors of the American Farmer:

You at least are aware that the article you kindly selected from "Bee-keeping in a Nut-shell," and which appeared in your March No., pp. 108 and 109, and which has been so rudely criticised by "P." in your April No., was not published in the interest of any patent hive. Although averse to controversy, I cannot let the unfair statements or surmises contained in this criticism, as regards myself and hive, pass by unnoticed. I cannot see how "P." can tell what I have conceived my hive to be, other than what I claim for it; and any one with but ordinary intelligence will, upon reading said claims, be satisfied that I have not exceeded common *bee* sense, and that "P." has "kicked before being spurred." As to my hive being "rushed through the Patent Office," and the rules for the guidance of those using the hive being "guess-work,"—these are sweeping assertions, which the *facts* in the case brand as without foundation in every particular. I am aware that the book now "under fire" is imperfect, (it was partially made so by typographical errors,)—it was written in a hurry and not revised. I acknowledge having "quoted others," and I freely admit that it was written to help sell my hive; but I still maintain that the general information which it gives those who have no knowledge of the proper care and culture of bees, is in the main correct, and I am glad to know that it has already accomplished much in stimulating bee culture, and that its (nearly) 1000 readers are pleased with it. Notwithstanding what "P." says to the contrary, I say (and will be endorsed by most of the bee-keepers of the country) that Queens *rarely* die the first year, and often live five years. I will not trespass further on your valuable space, and in conclusion will say that, when in error, I am glad to be corrected, but dislike to be "charged" in such an uncharitable, ungenerous way as my hive and I have been by "P."

C. W. B.

[It is but just to the author of the little work alluded to, to say, that we copied the extracts published by us in our March No. without any solicitation from him, but of our own volition.—Eds. A. F.]

MANURING FOR CORN.—A corn planter makes a very true remark when he says that "Nature is a great chemist, using up materials; but not a creator, making something out of nothing. Whatever dressing is applied merely in the hill or upon the hill, for effect, depends upon the general condition of the soil outside of the hills. Good ground, in any season, or plenty of dressing upon it, is necessary to a large crop."

The Poultry Yard.

CHICKENS.—There are many who do not look on the little things that make life so pleasant in a proper light. It is not the large plantation; it is not the accumulation of property; it is not fame; the thousand little things of life give the pleasure of living. There are great minds that cannot condescend to pay any attention to little things. We have seen such. We have had such as companions, yet we never saw any of them turn away from a spring chicken, nicely cooked. Poultry is a necessity, and the man who will not provide for the housewife all the necessities, should be put on corn bread and corn meal coffee—Commend us to the housewife that has a large yard full of Brahmas, Cochins, Bronze Turkeys, Rouen and Aylesbury Ducks.

H. W. C.

French Fowls.

Houdans.—Perhaps in no country is poultry breeding made so much of a business as in France. The best English authorities that we have met with estimate the French poultry product at ten times that of Great Britain. This need not be a matter of surprise when it is remembered that the flesh of chickens is to the French what beef is to the English. Some fanciful philosophers would account for the well-known pugnacity of the French by attributing it to feeding so exclusively on capons. Be this as it may, the official figures foot up the egg crop at something enormous. The "Universal Dictionary" for 1866 (the latest figures that we have,) says: France annually produces 7,000 millions of eggs, and estimates the whole poultry wealth at 900 millions of francs.

With such a poultry record, France may well set up for an authority in the Poultry Yard. As far as we can learn the favorite breed of France is bred near Houdan and gets thence its name, though there are several others very highly esteemed.

The *Houdans* are especially esteemed for the table. They are of large size, with fully developed breast, short legs, and but little offal. The plumage is invariably white and black-spangled, with heavy crest of same color; the comb is triple, the outer sides opening like two leaves of a book; the inner having the appearance of an ill-shaped strawberry. The legs are strong and short, and of pale lead color, with five claws—two hind ones, one above the other. Strongly developed whiskers and beards both in cocks and hens.

We have found them most excellent layers, and apparently quite hardy; they rarely ever set however. For close quarters we should not hesitate to recommend them very highly.

Crescaours.—This breed too gets its name from the town near which it flourishes most. The race is widely distributed throughout the whole province of Normandy. They are in

color black, and present a very odd appearance, owing to their long crests, and two-horned combs. They are esteemed as layers and for the table. We cannot commend them, however, as we have not found them equal to the *Houdans*, either for early maturity or hardiness.—*Farmers' Advocate*.

About Brahmas.

1. Never set a hen in a box above the ground or floor of the chicken-house if possible, as the eggs dry too fast and lose their vitality. If possible to set the hens on the ground you will have much better success.

2. Never set more than fifteen eggs, no matter how large the hen. Some set only ten or twelve, but under ordinary fowls thirteen or fifteen will hatch as readily as a less number—though more are a waste.

3. Always be careful to mark the eggs set with the date of setting, as other hens often lay on the same nest with a setting hen, and when the brood is ready to come off, extra unhatched eggs are left in the nest which you cannot account for, and do not know how to dispose of except by waste, not knowing when they were laid.

4. Keep a memoranda of all hens set, with dates when they should come off, that you may have coops and proper food prepared for them. Also take the young chicks from the hen as they dry, because sometimes they may run over their time a little, or hatch earlier.

5. Better let hens come off their nests for a short time for food and water, than to confine them and feed on the nest.

Two boards nailed together at one end, with slats or lath across in the form of an A, make an excellent coop.—*Prairie Farmer*.

LEGHORNS.—Mr. C. A. Pitkin, Hartford, Conn., a noted White Leghorn breeder, says: White Leghorns are the most profitable and most desirable of fowls; for they are good for the table, of medium size, are hardy and easily reared, they feather soon, they mature early, and commence to lay when quite young; and they lay more and larger eggs for their size and food they eat, than any other breed. Besides all this, they are very handsome. They are quick in their motions and easily startled, yet they may be completely domesticated. I have a cock which will come to me every morning (as I go to feed him) for me to pat or stroke, after which he will straighten up and crow, as much as to say, "Ain't I about right?" and then go off with the hens, perfectly satisfied.

BET SUGAR.—The sugar from the Sacramento works, (Cal.) is pronounced superior to the best cane sugar from the refineries. The company are enlarging their operations, and will have under cultivation this year 1,600 acres in beets, to supply their works with the raw material.

Horticulture.

Massachusetts Horticultural Society.

We have been favored by the Secretary with a copy of the Transactions of this Society for 1872. No other association in this country, if even in Europe, embraces within its membership as great a number of eminent scientific and practical horticulturists, as are to be found within its fold. In looking over the ample pages of the "Transactions," comprising nearly 200 pages, we find many interesting facts which we would like to transfer to our pages, if our space permitted. We will, however, confine ourselves at present to a few items of immediate interest. In the report on Fruit by Rob't Manning, Esq., on the state of the weather for the winter of 1871-2, and its effect upon fruit, the chairman says:—

"It will be seen that the most remarkable characteristic of the winter was unusual dryness, at times accompanied with severe cold and high wind, and it is believed that to this cause we are to attribute the injury to the grape-vines, which so much lessened the crop of that fruit. The opinion is expressed by the best cultivators that the extremely cold, dry air and high winds caused such an evaporation from the tops of the vines, as the roots, owing to the depth to which the ground was frozen, were unable to supply. And this opinion is strengthened by the fact that vines which, from the peculiarity of their situation were enabled to strike their roots to an unusual depth, were enabled to escape entirely or with but partial injury.

"In our last report, in commenting on the unusually cold weather of November, 1871, we expressed the belief that the wood and buds of our fruit trees were so well matured by the previous warm weather that no injury need be apprehended. This belief has proved to be well-founded, and we think it probable that the exemption of our fruit trees from injury is to a great extent due to the fact that they strike their roots more deeply than the vine, and thus were protected from injury by excessive evaporation.

"It was a most gratifying surprise, when so many of our hardiest forest trees were either killed outright, or greatly injured, to find that even the buds of the peach trees had not sustained the slightest damage.

"The strawberries experienced much injury from the winter, and wherever water stood over them and was frozen, the destruction of the plants was complete. Raspberries and blackberries, when unprotected, were greatly damaged.

"The summer will long be remembered for the extreme heat and great quantity of rain, reminding us of the accounts which we have

read of tropical climates, the thermometer having for about three weeks in the last of June and first part of July stood at 90°, or in that neighborhood. Under the circumstances, the growth of all vegetation was extremely rapid, and the crop of strawberries, particularly, was much larger than could otherwise have been the case, after the injury inflicted by the winter."

Strawberries.—Among the new varieties of Strawberries exhibited at the last Show, Mr. Manning notices the "Col. Cheney," by Mr. Warren Heustis, which is described as very large and handsome, slightly irregular in form, color bright scarlet, with yellow seeds, and much resembling Jucunda in appearance; flesh pale red, solid, and of fair quality, though not as high flavored as Triomphe de Gand, with which it was tested on 21st July. It was deemed a promising variety. The flower is pistillate.

The Nicanor, in the experience of Mr. Heustis, is very desirable as an early kind, both for family or market, being, though not of large size, larger than Jenny Lind, our best early strawberry thus far, of equally good quality, and far more productive—quite as productive as Wilson. The fruit retains its gloss well, and is firm enough for market. The plants are very vigorous and hardy, having stood the past unfavorable winter in an exposed place better than any other variety.

Currants and Gooseberries.—Notwithstanding the prevalence of the currant-worm, the show of Currants and Gooseberries on 20th July was considered the finest ever made in the Hall; the Versailles Currant as usual carried off all the prizes for red, while David's Transparent was superior to any other white, and is safely pronounced the most desirable of the white currant. The Downing Gooseberry received the 1st premium, the Smith's Seedling the 2d, and the Houghton's Seedling the 3d, and the committee think these awards justly express the relative value of the kinds, and are all superior to the Mountain Seedling. The committee say that the experience of another year has shown that hellebore is not only the most effectual, but when promptly applied, as cheap as any remedy. A good method of using is to place it in a wide-mouthed jar, with a lip around the edge, over which can be tied one or two thicknesses of fine muslin. The hellebore can then be shaken through the muslin directly where it is wanted, with very little waste, and, if good, is certain death to every worm it touches.

Raspberries and Blackberries.—Of the former no new kinds were shown; the Clarke has continued to grow in estimation, especially for family use. Of the latter, the Wilson still holds the preference for general cultivation, and this, with the Dorchester, were the only two varieties shown.

Apricots.—Mr. J. Q. A. Wild, of Quincy, exhibited a very fine dish of this fruit, of delicious quality, and hopes are expressed, from this sample, that this fruit may yet be more plentiful in our gardens.

Peaches were more abundant than for several years. Mr. C. S. Holbrook exhibited fine specimens of forced on 8th June. The specimens of *Reine des Vergers*, from Mr. Hunnewell's orchard house, on 7th Sept. were beautiful beyond all praise. Very fine *Hale's Early*, of open culture, were shown by Mr. J. B. Moore, on 24th August.

Nectarines.—This fruit, as well as *Peaches* and *Apricots*, having escaped injury from the winter, were shown at the annual exhibition, and the committee believe that the advice given to cultivate the *Nectarine* and *Apricot* has been justified by this year's crop.

Plums have been much more abundant than in former years; Mrs. T. W. Ward exhibited Sept. 7, a collection of 15 finely grown varieties, the best of which tested was the *Columbia*.

Apples.—The crop was much more abundant than the last year's. Among the new or noticeable varieties was the *Tetofsky*, exhibited 3d Aug., a beautiful and excellent early apple, well adapted by the small size of the tree for planting in gardens, and believed to be worthy of more attention than it has thus far received. The *Summer Sweet Paradise*, exhibited August 31, is of large size, and extremely rich in saccharine matter, and those who desire sweet apples will find it well adapted to succeed the *Large Yellow Bough*.

Pears.—Among the most interesting exhibitions of *Pears*, was a collection from Mr. G. F. B. Leighton, of Norfolk, Va., shown on the 20th of July. Among these the *Ott*, *Dearborn's Seedling*, and *Osband's Summer*, when tested, proved not to be as good as those grown here; the *Ott*, though large and handsome, not having its usual high flavor, and the *Dearborn's Seedling* being quite astringent. The *Clapp's Favorite* was not as large as when gathered here. Mr. Leighton also sent to the Annual Exhibition extra large specimens of

the *Duchess d'Angoulême* and *Louise Bonne of Jersey*, the latter particularly remarkable for the knobby form and swollen stems which characterize fruit grown in Southern climates. Sept. 7, the 2d prize for *Pears* was awarded to the *Ott*, grown by Messrs. Davis and Bates. The specimens, though large, were not as highly colored nor as high flavored as are sometimes seen, but we mention it for the purpose of saying that those who wish for a *Pear* to precede the *Seckle*, and equal to it in high aromatic flavor, will find such an one in the *Ott*. It is, moreover, an excellent grower.

Messrs. Clapp exhibited fine seedling *Pears*, one of which on the 19th and 26th Oct. was of full medium size, generally obovate but irregular, and variable and not handsome in shape. Skin clear yellow. It was thought by the committee the juiciest *Pear* they had ever cut, and exceedingly spirited, perhaps too much so to please the majority of tastes, but would be much admired by those who relish a sprightly *Pear*. In flavor it resembles *Beurre Superfin*. It appears to keep well, the specimens having been gathered on the 28th of September.

One of the most remarkable collection of seedling *Pears* ever seen was brought to the rooms by Hon. M. P. Wilder. They were grown by Mr. B. Fox, of San Jose, Cal. They were all from seed of the *Belle Lucrative*, but with one exception, no resemblance to the mother variety could be detected, while a very strong likeness to some of the other standard varieties was apparent to the most superficial observer. One of them could not be distinguished from the *Winter Nelis*; others bore very strong resemblance to *Bloodgood*, *Seckel*, *Lawrence*, *Josephine de Malines*, *Beurre Superfin*, etc. Such striking resemblances could be explained only by the supposition that the flowers of the *Belle Lucrative* had been fertilized from trees of these other varieties standing near. It was stated that the tree which bore the *Pear* of *Winter Nelis* character, resembled the *Beurre d'Anjou* in habit so much that it might be taken for one.

Hon. Mr. Wilder took the prize for new varieties of *Pears*, some of the most promising of which, as tested by him, are: *Souvenir de Congres*, *Loriot de Barny*, *Madame Cuissard*, *General Bonchamp*, *Monchalard*, *Vicar Junior* and *British Queen*.

Grapes.—The *Moore's Early* was raised by Mr. J. B. Moore, probably from the *Concord*,

and was shown on the 7th of September, when, though not fully ripe, it was decidedly superior to any other shown, and again at the Annual Exhibition. Bunch large and compact; berry large, round, adhering well to the bunch, black with blue bloom. It has considerable hard pulp and some foxiness, but is sweet and juicy. As compared with Concord, the berry is larger, and skin of about the same thickness. It is considered by Mr. Moore the best of two thousand seedlings which he has tested, and was thought by the committee the best of fifty of these seedlings exhibited last year. We deem it premature to express an opinion as to its value for general cultivation, but recommend a further trial of it.

A lecture on Hybridization and Production of new Plants from seed, by Hon. Marshall P. Wilder, is published with the Transactions, some extracts from which we may hereafter give.

Winter Apples,

To the Editors of the American Farmer:

In your No. for April, on page 150, my neighbor, A. W. Sweeney, in commenting on my reply to the enquiry of J. P. J. Hubbard, "as to the best winter apples and pears for Maryland," must have omitted to put his spectacles on while reading the same. He says, "of the eight kinds named by Mr. B., I should have placed Tulpehocken at the top instead of the bottom of the list." Now, if he, or any one else, will turn to page 125 of your March No., they will find that I have placed the Tulpehocken as third on my list for a Maryland orchard of winter apples. Smith's cider and York Imperial I have put ahead of it, as being earlier, surer bearers, and of higher flavor, and though not quite so large in size, they will produce as many bushels per tree, and bring as good a price, in any market where they are known. Mr. S. knows full well the difference between the flavor of the Bartlett pear, and what is known about Baltimore as the Bell pear. Now, we venture to say, that there exists just about as much difference in the flavor of the two apples we have placed first in our list and the Tulpehocken Pippin as there exists in the two pears named above. Our estimation of apples and pears is pretty much as it is of men—always preferring such as are productive, spicily, and solid to the core.

That some of the eight kinds enumerated by me may not "have proved profitable" with Mr. S., is not at all improbable, as soil, situation and treatment has much to do in growing successfully individual kinds; in fact, we are not acquainted with any apple that has so robust a constitution as Smith's cider, and we know of no sort so liable to the attack of the

borer as the Tulpehocken pippin, or Fallowater, as it is often called.

On reflection, we feel gratified that our list of pears has not suffered much by the criticism of Mr. S. It was considered worth something when we wrote it, and that opinion remains unchanged.

W. D. BRACKENRIDGE.

Govanstown, April 19th, 1873.

Vegetable Garden—Work for May.

Now the hoe and the rake must be kept busily at work—and remember that the best time to destroy weeds is when they have hardly begun to live. Keep the surface soil fine and continually stirred, and the weeds will be killed as soon as they germinate. This method is the easiest too, as it is doubtless the most effective. Hilling up almost all of our ordinary garden plants is advantageous. The time has arrived for setting out the tender kinds of vegetables, and for the sowing of seed for fall crops. The hardy varieties put in last month should now be sown again for a succession of crops.

Asparagus may be cut sparingly from beds which have been planted two years.

Bush Beans may be planted in rows 30 inches apart. For Limas the best plan is to start them, for small gardens, in a corner of the hot-bed.

Beets must be well worked at an early stage of their growth, and indeed at every stage to be grown to perfection.

Cabbages are to be set out and seed sown in beds for later crops. All plants of this family must be unceasingly worked to attain the best results, and a dusting, occasionally, of plaster will be found advantageous.

Cauliflowers require the same general treatment as cabbage.

Celery should be sown at once, if not already done in well-prepared seed beds. The soil should be rich and moist.

Carrots must be worked as soon as the rows can be seen, otherwise the weeds will get ahead of them. The critical period of their existence is when they are first appearing above the ground.

Corn is now to be planted every week or ten days for a succession.

Cucumbers, Melons and Squash may now be planted in the open air, and plants raised in hot-beds set out. Give whenever practicable liquid manure, in which all of this family delight.

Egg Plants can be set out. They, too, like liquid manure, and repay the trouble of applying it.

Lettuce for fall use should be sown, and earlier sowings set out.

Onions should be worked as soon as up, as also should be *Potatoes*.

Parsley is to be sown; as the seed are slow of germination, it is well to soak them in warm water.

Peas ought to be sown every ten days. Draw the earth to them in hoeing, and such as need sticking ought to have it done before they begin to drop over.

Parsnips ought to be sown at once.

Tomatoes should be transplanted as soon as there is no further danger of frost. They should, when possible, receive some support in the way of stakes or trellises.

Turnips and *Radishes* are liable to be attacked by the fly, when they should receive a dusting of air slaked lime, ashes or plaster.

Livestock.

Devon Cattle.

This breed of cattle has ever been a favorite one, for the particular properties in which it is found to excel, the superior quality of their flesh for the shambles, and their peculiar adaptation for the general work of the farm as oxen. For these purposes they are undoubtedly more valuable than either of the other improved breeds prevalent among us, whilst for symmetry of form and beautiful appearance they are unequalled by any, if we except the lordly Durham. As milkers they give an average in quality with most other breeds, the Ayrshires alone excelling in this respect, and after the Jerseys, it is equal, if not superior, in quality to that of all others, and in their net weight of carcass the Short-Horn Durhams alone excel them.

In the *Canada Farmer* we find, accompanied by a portrait of a pair of this beautiful race, a very correct description of the appearance and general characteristics of the Devons, which we annex. The Devons are to be found in their purity and excellence in Maryland, probably unsurpassed, if equalled, by those in any other State, and would, as is now the case with the Short-Horns, be found favorably to compare with any of their race in the country whence they sprung.

The Devon breed of cattle are found in their purest state in North Devon. The head of a good Devon is small, clean, and free from flesh about the jaws; deer-like, light and airy in its countenance; neck long and thin; throat free from jowl or dewlap; nose and around its eyes of a dark orange color; ears thin and pointed, tinged on their inside with the same color that is always found to encircle its eyes; horns thin, and fine to their roots, of a cream color, tipped with black, growing

with a regular curve upwards, and rather springing from each other; light in the withers, resting on a shoulder a little retiring and spreading, and so rounded below as to sink all appearance of its pinion in the body of the animal; open bosom, with a deep chest or keel; small and tapering below the knee, fine at and above the joint, and where the arm begins to increase it becomes suddenly lost in the shoulder; line of the back straight from the withers to the rump, lying completely on a level with the pin, or huckles, which lie wide and open; the hind quarters seated high with flesh, leaving a fine hair-ham tapering from the hock to the fetlock; long from rump to huckle, and from the pinion of the shoulder to the end of the nose; thin loose skin, covered with a hair of a soft and furry nature, inclined to curl whenever the animal is in good condition and in full coat; a white udder is sometimes passed over, but seldom without objection.

The Devon cattle are highly esteemed, both for feeding and draught, but are not so much valued for the dairy; yet their milk, although deficient in quantity, is of such excellent quality, that as much butter can be made from that yielded by a North Devon cow as from that yielded by the breeds which are esteemed better milkers. For all the purposes of labor, whether activity, docility or strength and hardiness, this breed cannot be excelled. It is said that on fallow land it is no uncommon day's work for four steers to plough two acres with a double furrow plough. Although they do not attain the height of several other breeds, they fatten early and rapidly, and their flesh is of excellent quality. Indeed, the quality of the meat is unrivalled by that of any other breed.

WOOL.—The *N. Y. Economist*, the leading journal of the financial and commercial interests of the U. S., publishes extracts from circulars of eminent firms connected with the Wool trade in this country and England, tending very positively to show that "good prices throughout the coming year may be anticipated."

By the way, a short time since the Wool speculators from the East attempted to forestall the wool growers at the West, in the quiet purchase of all the stocks on hand—the attempt was discovered in time to prevent its success, and by a concerted action, which farmers can so seldom take, they determined to hold on to their fleece until such time as a fair price could be obtained from the agents of the manufacturers, and for once at least they were successful. If in every neighborhood of ten miles square an agricultural club could be formed, as we have so often urged, and to which Dr. Stewart in an article in this number also calls attention, the farmers would be able in many cases to protect themselves from imposition.

The American Farmer

AND

RURAL REGISTER.

PUBLISHED ON THE FIRST OF EVERY MONTH
By SAML. SANDS & SON,

No. 9 North street, near Baltimore street, Baltimore, Md. (sign of the Golden Plow.)

SAML. SANDS, } Editors and Proprietors.
WM. B. SANDS, }

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Cover Pages subject to special contract.
Transient Advertisements payable in advance—all others quarterly.

Advertisements should reach us by the 20th of the month, to secure insertion in the succeeding issue.

BALTIMORE, MD., MAY 1, 1873.

OUR PREMIUMS.

Our general offer of premiums terminated with the last of April. Any persons who sent us lists of subscribers, and notified us they were working for a premium, are now invited, if they have not already done so, to claim such as they may be entitled to receive.

We have selected from our list some of the articles which seemed to be most popular, and for the present, at least, limit our premiums to them.

Premiums for Clubs.

1. To any person sending us 12 subscribers at \$1.50, or 40 at \$1.00, we will send a \$12 IMPROVED BECK-WITH SEWING MACHINE.
2. For 8 subscribers at \$1.50, or 16 at \$1.00, we will send a silver plated Pie Knife, price \$4.00.
3. For 6 subscribers at \$1.50, or 12 at \$1.00, we will send a Gold Pen and Silver Pencil Case, price \$3.00.
4. For 4 subscribers at \$1.50, or 8 at \$1.00, we will send a Silver Fruit Knife, price \$2.00.
5. For 3 subscribers at \$1.50, or 6 at \$1.00, we will send a silver-plated Cream Ladle, price \$1.25.

The money must accompany the names, but the subscribers need not all be at one post office. Remit by draft, post office order, or registered letter.

JANUARY NO. FOR 1873.—We are still much in need of this No. Persons who do not keep their files, on sending it to us, will be credited 15 cents on subscription account.

OUR ADVERTISERS.—Our readers know that it is not the custom of the *Farmer* to indulge in wholesale or frequent laudation of the patrons of its columns. We do not hesitate to say that we are favored in this respect by the most respectable and extensive houses in their respective lines in this city, and at this season we think it is but justice to call special attention to our advertising sheets. Baltimore has long been distinguished for her numerous extensive manufactories of agricultural implements, and for the lead which she has taken in the markets of this country for natural and manufactured fertilizers. Both of these branches are largely represented, as it is proper they should be, in our advertising pages. Among the former are to be found the long established and well known houses of *R. Sinclair & Co., Thos. Norris & Son, Griffith, Baker & Bryan, Joshua Thomas, E. Whitman & Sons, J. C. Durbin, Linton & Lamott.* The manufacturers and dealers in fertilizers embrace the names of Messrs. *Jno. G. Hewes, Tate, Muller & Co., C. W. Burgess & Co., John S. Reese & Co., J. J. Turner & Co., Moro Phillips, Robert Turner & Son, Andrew Coe,* the father of guano manipulation in this country, *Walter Whann & Co., Joshua Horner, Jr., R. J. Baker & Co., Bangh & Sons, Lister Bros. and Geo. Dugdale & Co.*

In the miscellaneous departments the foremost houses in our city will be found, and we hope the readers of the *Farmer* will not fail to look over the monthly advertising supplement of the paper, containing as it always does, much to interest.

OUR CORRESPONDENTS.—The usual communication from "LABORER" will be missed from our pages this month. Its absence will be the more regretted that it is due to a deep domestic affliction.

Up to the hour of going to press, we have not received the promised paper of our friend GILMER on Pea Fallows. We sincerely pray that he may not have been, as we much fear is the case, attacked by his old disease.

MR. NEWTON, it will be seen, renews his discussion of the monetary question in this month's *Farmer*. It is a subject of deep interest, and probably this is the most suitable time, in the pause of political conflicts, for its examination. The greatest statesmen of the country, since the days of Hamilton, have given it their study, but as Mr. Newton has shown in these papers, and as all the intelli-

gent readers of history are aware, have widely diverged from any given point in the settlement of the questions discussed. Men of all parties and sections have differed upon them, and we shall not be at all surprised, from intimations we have had, if some of the points taken by Mr. Newton should meet with a response in our pages.

We, however, give Mr. N. *carte blanche* to present his views in full, and, as he justly intimates in his present number, no where else could he find a more intelligent auditory than is at his command through the pages of the *American Farmer*.

MR. HARVEY ON GUENON'S SYSTEM.—We express our thanks to this gentleman for his clear and practical paper upon this oft referred to, but generally little understood, subject. Many years ago he began his investigations of the correctness of the views advanced by M. Guenon, and occasionally communicated their results, so far as reached, to the *American Farmer*, so that when we solicited him to inform us whether his continued observations had confirmed or reversed his opinion of the value of the system, we knew that we should have in his communication the teachings of enlightened experience. That his response is so full, explicit and satisfactory will be, we are sure, a matter of congratulation with our readers.

The Hudson Corn.

The demand upon us for small packets of this corn, in consequence of the offer made of it in our April issue, has been immense. Of course the quantity we could forward to each applicant was not very large, but enough was sent to plant 25 or 30 hills and give an idea of its character. The first supply which we purchased having been exhausted, we have been presented by Mr. Miles, on whose estate the large crop reported was grown, with an additional quantity, of which we have some yet on hand to supply to any of our friends who may still wish to try it.

SALE OF JERSEYS.—The sale of the herd of Richard M. Hoe, Esq., West Farms, N. Y., on 17th April, averaged \$135 for 7 bulls, and \$244.16 for 21 cows. The bull "Sarpedon," less than one year, sold for \$560; and the cows "Vesta," 5 years old, "Dido," 6 years, and "Leda," 4 years, sold respectively for \$700, \$640 and \$605.

A BIG JOB OF PLANTING.—Col. Edward Wilkins of Kent Co., Md., of whose peach growing the readers of the *Farmer* know something through its pages, informs us that he is now planting an orchard of 15,000 trees all of one variety—the Early Beatrice. This is a new peach, one of those originated by Mr. Rivers of Sawbridgeworth, Eng., and is very early, ripening in this latitude about the 10th of July. The fruit is of medium size, light colored with red cheek, and of delightful flavor and juicy, melting flesh.

This operation of the Colonel's is a bold one, but he has tested the peach named and is satisfied of its value and excellence; and we doubt not he will handsomely profit by the magnitude of the undertaking. Instead of corn, Col. W. proposes to grow in a portion at least of his new orchard, a crop of tobacco, incited to this, if we err not, somewhat by the papers of Mr. White, who shows what ample manuring and thorough cultivation will effect. As he is no half-way culturist, but possessed of full faith in the power of good fertilizers, there is no question but what the experiment will prove successful. So large a quantity of manures is used yearly on his farms that it is in contemplation this season to erect a bone mill, besides possibly, other apparatus for the manufacturing of concentrated fertilizers—thereby saving freights, commissions, &c.—besides having them composed of just such materials and in such proportions as are deemed most suitable to the crops and soils.

ENGLISH SEEDS.—We are indebted to Messrs. Sutton & Sons, the eminent seedsmen of Reading, England, for packages of various seeds, principally of the grasses and forage plants, including some species little known here, and which they ask we will have tried by some of our agriculturists. We have placed them in the hands of gentlemen who will, as we are assured by them, test their value and adaptability to our climate.

CATALOGUE OF MUIRKIRK HERD.—We have received from Mr. Chas. E. Coffin a copy of his new catalogue of Short-horns, a beautifully printed little volume, illustrated by portraits, drawn on stone by John R. Page, of Royal Briton, the cow Masterpiece, and the heifers Rosamond and Water Nymph. The bulls in the list number eleven, and the cows and heifers thirty-five.

BALTIMORE CO. (MD.) FARMERS' CLUB.—We had the pleasure of attending on the 3d of April a meeting of this body held at the farm of *D. M. Matthews, Esq.*, of Dulaney's Valley. An interesting discussion was had as to the profitableness of raising hogs in the localities represented by the members, and the best breed for the circumstances of their situation.

Mr. J. G. Booth read a short but comprehensive paper on the value of clover. *Mr. Matthews* was appointed a delegate to represent the Club in the Agricultural Congress, to be held at Indianapolis on the 24th of May; and a committee of three was appointed to wait upon the Governor of Maryland to ask his intervention to reform certain abuses complained of by farmers in the management of the Hay Scales in this city. The Club then adjourned to partake of a substantial dinner provided by the host of the day, as is the custom.

Mr. Matthews' farm comprises some 350 acres, mostly cleared, and its substantial fencing, numerous and commodious farm buildings and general good order, speak well of the enterprise and good management of that gentleman.

THE GUNPOWDER AGRICULTURAL CLUB, OF BALTO. CO., (MD.), held its meeting for April on the 12th ult., at the farm of *Mr. Talbot T. Gorsuch*. The regular subject up for discussion was upon the breeds of cattle best suited for the dairy, with some subdivisions on congenital points. An interesting and pleasant incident of this meeting was the presentation of the silver cups offered as prizes by the Club for the best and second best acres of corn grown last season. The host of the occasion had been awarded the first prize for a yield of 22 bbls., and *Mr. Joshua M. Gorsuch* received the other, his crop measuring 20½ bbls.

VIRGINIA STATE AGRICULTURAL SOCIETY.—The executive committee of the Virginia State Agricultural Society met on the 8th day of April, at the Exchange and Ballard House, in the city of Richmond. Members present: *Gen. Wm. H. F. Lee*, White House; *Col. Wm. C. Knight*, Richmond; *R. B. Haxall, Esq.*, Orange; *Dr. Wm. T. Walker*, Goochlandville; *Col. Randolph Harrison*, Cartersville; *Wm. A. Burke, Esq.*, Staunton; *Col. J. D. Ross*, Lexington; *Col. Thos. H. Carter*, Charles City; *Maj. R. W. Noland*, Loudoun; *Maj. Jno. D. Rogers*, King George; *Maj. S. S. Bradford*, Culpeper; *Dr. S. P. Moore*, Richmond.

The committee resolved to do all in their power to make the next State Fair, which will be held at their Fair grounds, in Rich-

mond, commencing on 28th October, attractive and a success. They revised their premium list, and increased the awards several thousand dollars, making several radical changes. A schedule of premiums and list of judges were selected with great care, and if the latter will attend promptly, backed up by an energetic president and working executive committee, our Virginia farmers will not have cause to regret attending the State Fair.

Let every farmer resolve to contribute something. R.

THE KING GEORGE (VA.) AGRICULTURAL AND POMOLOGICAL CLUB has elected the following gentlemen officers of the Club for the ensuing year: *Dr. Richard H. Stuart*, President; *Jno. F. Dickinson*, Vice-President; *Col. Edward T. Tayloe*, Secretary; *Maj. H. Byrd Lewis*, Treasurer. J. D. R.

NATIONAL AGRICULTURAL CONGRESS.—The next congress will be held at Indianapolis, Ind., commencing on Wednesday, May 24th, 1878. The necessary local arrangements for the occasion, it is now understood, will be ample and complete.

By the constitution of this body each State and Territory is entitled to two representatives for every State organization engaged in fostering agricultural pursuits. The United States Department of Agriculture, Agricultural schools and colleges, with an endowment of not less than \$20,000, and agricultural and horticultural societies of not less than fifty members contributing to the support of this congress, are entitled to one representative each.

The purpose of the organization is to afford an opportunity annually for an interchange of views and opinions upon all subjects affecting the interests of agriculture and its kindred industries, and to promote concert of action among those engaged in these pursuits, in all matters relating to them, and of national importance.

A CAUTION.—It will be of interest to all of my brother farmers who take horses or any other kinds of stock to pasture, to know that if they stray or are stolen, the farmer may be held responsible by law for the loss to the owner. I have had it tried before Judge Garey, in the Court of Common Pleas, of this city, and have paid all the charges and the value that was put upon the horse stolen, and I now write this as a warning to my brother farmers. *Balto Co., Md.* SAM'L SUTTON.

[The law of other states may be different from this; and the terms of agreement between the parties will of course affect the issue.—*Eds. A. F.*]

The President has appointed as Honorary Commissioners to the Vienna Exposition from Maryland, *W. T. Walters, Esq.*, of Baltimore, and *Col. M. A. McKellip*, of Carroll Co.

Virginia Lands.

We are very certain of the fact, that industrious men, with a small capital, at the North or West, or any other quarter of the globe, wishing to emigrate, cannot at this time do better than by investing in lands in any of our Southern states, and particularly those in Maryland, Virginia and the Carolinas, where the facilities of market are so great. We have received from Mr. Wm. Holman, of Cartersville, Va., a letter upon other business, to which he has appended a P. S. giving a description of the country and its advantages in his vicinity, which we feel impelled to publish, not by any solicitation on his part, but, having much confidence in him, we have no hesitation in recommending to those who are disposed to emigrate to that state, to place themselves in correspondence with Mr. H., whose card will be found in our advertising pages. He says:—

"I will take the liberty of adding a word of P. S. touching my land agency. I have now on hand about 60 tracts, ranging in size from 50 to 1500 acres, and in price from \$3 up to \$20. I am offering some of these lands exceedingly low. I can sell lands lying in sight of James river, of good quality, heavily timbered, at \$5, and some of the best lands in this region at \$10, all located within a few miles of James river and Kanawha canal.

This is truly a most desirable region of country, possessing as it does every advantage of climate, a kind and fertile soil, easy and cheap access to market, convenient to churches, schools, mills, post-office, and withal, most excellent society. And in addition to our water line of transportation, we are soon to have a railroad also. The Ohio and Chesapeake railroad company, which has just completed its main trunk line, connecting Richmond with the Ohio river, will soon commence a branch of their road, called "the Straight Short," running from Richmond via Lynchburg to Clifton Forge, and which will pass through the heart of this section.

This region is finely adapted to the cultivation of tobacco, and the best shipping and stemming tobacco made in Virginia comes from this section.

Again, there is no portion of Eastern Virginia where the people are doing better than here. Last year, notwithstanding the drought, our planters made fine crops of tobacco and wheat, and they are now getting fine prices for their crops. One of my neighbors, on one of the poorest places here, with only one hand besides himself, made nearly 10,000 lbs. of tobacco, and for which he got nearly \$900. Another, from some 12 or 13 acres, made nearly 20,000 lbs., all of very superior quality. This, too, is the finest country for fruit

and vegetables in the world. A Northerner recently settled here, raised last season peaches weighing 9 ounces. The grape grows here finely, and the wild grape grows abundantly all over our forest. Last year I made a cask of most excellent wine from the wild grape, and I gathered five (5) bushels of grapes from one vine.

Why emigrants do not come here more freely is a mystery to me. Mr. B., the gentleman alluded to above, says that this is the most beautiful inland country he ever saw."
WM. HOLMAN.

PUBLIC SALE OF LIVE STOCK.—We call attention to the advertisement in this issue of Mr. J. Howard McHenry. This gentleman has long been a zealous and conscientious breeder of improved stock, and that he now offers to sell is of the best of its class. We hope our readers will bear in mind the date of this sale. We will forward catalogues of the sale to any one desiring them.

THE DEATH OF BARON JUSTUS VON LIEBIG, the distinguished chemist, whose discoveries in Agricultural chemistry almost revolutionized the husbandry of the civilized world, is announced as having taken place on the 20th of April.

THE HUDSON CORN.—A correspondent in Howard county, Md., in writing us for one of the small packets of this corn, which we offered to send out to our subscribers, says of it:

"If I read the article aright, it is a variety which Mr. Hudson has originated by constant selection and improvement of the ordinary variety cultivated in his section, thus affording a practical illustration of the theory of vegetable reproduction. I have pursued the same plan myself, and expect to plant my whole crop in "twin" ears, of my own selection, but tell your readers that all these large crops we read of grew on good land, and that no excellence in seed will make up for the deficiency in land; the heavy burdens are pulled by the strong animals; the heavy crops come from the strong land, and the seed which produce 170 bushels per acre on Mr. Miles' farm, would produce but a little more than ordinary seed, on land capable of three or four barrels with this ordinary seed.

"What I desire simply is this: We must make our land able to bear these big crops before we go to much expense for seed for which remarkable production is claimed; good seed and good land go together; it takes both to make a good crop, and the poor land farmers that get your big corn will be disappointed, and the rich land farmers will no doubt find a superior article, which, with su-

perior cultivation, will give superior results. About the "unprecedented yield," I think I have an account somewhere of six barrels more to the acre, which I would hunt up for you if you wished."

[Our correspondent will notice that we said nothing to indicate that we believed this corn would be everywhere prolific, or even valuable. The yield reported was certainly a surprising one, but that much was due to the variety of the seed seems undoubted, from the statement that the general crop on the high lands, in the same field, where the great crop of that kind was grown, was almost a failure. The position our friend takes is, however, undoubtedly the correct one. Something more than good seed is needed to produce good crops, but the former is a necessity for the latter.—Eds. A. F.]

SILK CULTURE.—We noticed some time ago the establishment in this city of a silk manufactory, the operations of which were carried on in a large upper room of a warehouse owned by us; the great increase in the business requiring more room than was there to be had, accommodations were obtained elsewhere, and we are gratified to learn that great success is being attained by the gentlemen who have established so important a branch of manufacturing in our State; and we note in the daily papers advertisements for a large increase of the number of female operatives in the works. It is a beautiful business, paying well for the female labor employed, and we always rejoice at witnessing increased facilities for its honorable employment. In various sections of our country the increase of the silk business is shown to be very great. In one of the New Jersey cities we recently noticed that 3,000 operatives in the silk factories there were engaged in a strike, that bane to all our business operations.

The time will come, and this is what we now wish to call attention to, when the necessity will be upon us for the raising of the mulberry for the feeding of the worms, in order to supply the raw material for the manufacture of the silk, now so successfully inaugurated, and which is at present imported from abroad; and we would advise those planting out trees to include in their selections some of the white mulberries, from which a rapid increase by cuttings can be obtained when the time arrives to supply the demand for the cocoons and the raw silk. It is very probable that some of the remains of the plantations which were made during the memorable *Morus Multicaulis* speculation, some twenty or thirty years ago, may still exist in many places, and may hereafter be brought into profitable play; then, everybody was for making a fortune off of the cuttings and buds, whilst no one seemed to make a

move towards the preparation for the manufacture of the silk, hence the wildness of the schemes of the speculators was only on a smaller scale with the celebrated South Sea bubble, and eventuated in the ruin of a large number of them.

Mr. W. D. BRACKENRIDGE, the editor of the *Floral and Ornamental Department* of the *American Farmer*, has been selected by the Trustees of the Johns Hopkins Hospital to lay off the grounds belonging to that splendid charity—which surpasses in its extent and comprehensiveness any similar benefaction in this country. The "*Sun*" of this city, in announcing this appointment says: "The highest skill in landscape gardening will be brought into requisition, and the committee will have the aid of Mr. Brackenridge, the well-known landscape gardener, who laid off the Capitol grounds at Washington, the grounds of Mr. Johns Hopkins' country seat, and of other places where great skill and fine taste have been displayed."

SOILING CATTLE.—Mr. Geo. E. Waring, of the Ogden Farm, recommends the following sowings for the support of 12 cows:—

1. Early the previous autumn, sow three acres of winter rye, to be cut the next spring from May 15 to June 15.
2. Early in April sow three acres of oats, to be cut from June 15 to July 1.
3. Late in April, sow two acres in oats or barley, to be cut from July 1 to July 15.
4. Early in May, sow two acres of oats or barley, to be cut from July 15 to August 10.
5. Middle of May sow two acres of oats or barley, to be cut from August 10 to Sept. 1.
6. Middle of June re-plant plot No. 1 with corn, which is to be cut from September 1 to September 20.
7. Early in July re-sow plot No. 2 with barley, to be cut from September 20 until roots and cabbages come in, which is usually October 1 to 15.
8. In September three acres of plots Nos. 4 and 5 are to be sown in winter rye for the next spring's use.

Josiah Quincy's method of soiling is as follows:—

May 20 to July 1, feed cut fodder from early clover, rye or orchard grass.

July 1 to 31, cut from oat field which was sown in April.

August 1 to 31, feed sown corn, planted from May 1 every ten days.

September 1 to 30, re-cut the oats on field No. 1; also feed one acre late corn, sown in June, every ten days.

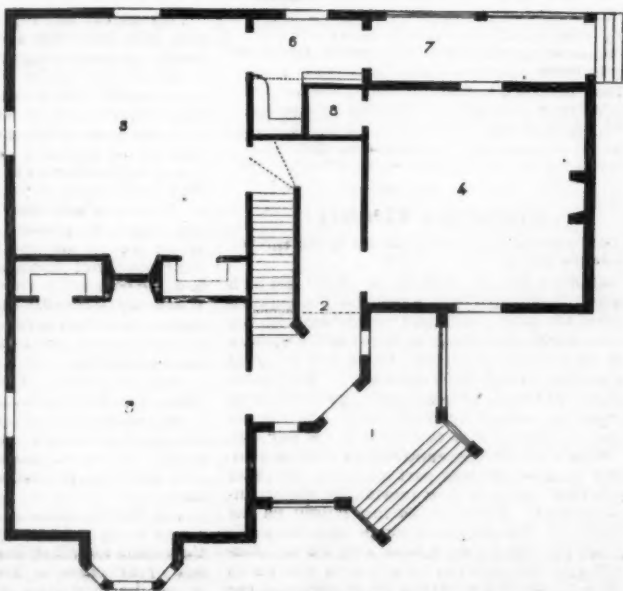
October to November, feed tops of vegetables.

LUCKERNE.—Although not included in the above, this plant will be found of greater value than either. After the first year it cuts at least four crops, in June, July, August and September, and more than a ton at each mowing, to the acre.

DESIGN FOR A COTTAGE.



We give herewith a design and plan of a neat and convenient Cottage, somewhat ornamental in its character, but with no intricate details. It is designed to be constructed of wood, the first floor 10 feet high in the clear, and the second a half story 6 feet at the eaves, rising to 10 feet in the centre.—The plan shows 1, Gallery, 5 feet wide; 2, Hall, $7\frac{1}{2}$ feet wide, containing stairs to second floor; 3, Parlor, 16 feet square, with a fine bay window; 4, Dining room, 15 ft. square; 5, Kitchen, 15 by 16 feet, connected with 6, the Pantry, which opens on the back gallery or balcony, 7. The second floor contains five bedrooms, each with a cupboard.



GROUND FLOOR PLAN.

The Fireside.

For the American Farmer.
COUNTRY CHILDHOOD.

Blest he whose childhood knows a country home,
Although it be the laborer's simple cot,
Whose earliest steps show him the heavenly dome,
By man's proud tenements obstructed not;
That dome emblazoned by a mightier hand
Than *Ais*, that wreathed a crown for fair *Italia's* land.

Whose earliest notes are copied from the bird
Which loves to carol at the vine-wreathed door,
Whose first gay, playful—though its step unheard—
The beam that dances on the cottage floor—
Or frolic breezes, when wooing him to race,
It showers the orchard bloom in his delighted face.

The morning sun awakes him with a smile—
"Come forth before I take my pearls away,
Come forth to see me at my work the while
I paint the landscape in the hues of day;
And watch the alchemy my flame can do,
While bringing golden grain from duller sheath for you."

At eve the great magician fo'ds his form
In royal robes, and bids the boy adieu;
"Fear not, though shapes of darkness threaten harm,
Whilst I am gone my stars keep guard o'er you;
Sleep soon descends his dowy balm to pour—
Farewell," and waves aloft his shining wand once more—

Once more around a dazzling splendor shakes,
And he is gone—the child enraptured stands
To gaze upon the gleaming fairy lakes
And castled islands of the sunset lands;
And still he stands, lost in that fading view,
Till many twinkling eyes come laughing through the blue.

And so he walks with Nature on her rounds,
To learn each phase of day or season's change;
She fills his brain with echoes of sweet sounds,
With fadeless pictures of the fair and strange;
And influences—diviner than he knows—
Prepare the youthful soul for manhood's joys and woes.

There come to him, upon the wintry wind,
And in the Spring's glad resurrection song,
Dark hints of sorrow to a world that's sinned—
Bright hopes of happiness through waiting long—
And every blade, green rising from its clod,
Is murmuring "Life is beautiful when reaching unto God."
G. W. L.

Christian Vitality.

"For he shall be as a tree planted by the waters."
—JEREMIAH, XVII. ch., 8th verse.

God's spiritual trees, those whom his own hand has planted, and which he has watered with his own blood and nourished with his own spirit, are trained, nurtured in the nursery of affliction, *incontestable token and proof of unerring wisdom and Divine love*: "For whom the Lord loveth he chasteneth, and scourgeth every son whom he receiveth:" and *this we are admonished, that this world is not our rest.*

Our Creator has endowed us with a two-fold nature—the one part material, the other spiritual; the one part mortal, the other imperishable. Although he has taught us the necessity of holding our temporal interests in subordination to the interests which are eternal, and although our own reason teaches us the wisdom of this Divine arrangement,—the infinite propriety of making the well-being of

the soul the object of our supreme care and labor,—yet who does not know how prone we are to reverse this order, and to place our highest and most absorbing regards upon the things which are seen and temporal. There are personal interests, family interests, public interests, which relate to this world alone, to which, by the very constitution of being which God himself has given us, we are *obliged* to attend. And the single fact that these merely terrestrial duties are not only important, but also palpable, tangible, continually appealing to our senses, while the things which concern the well being of the soul are invisible, remote and apprehended only by serious thought and the eye of faith, exposes us to a fearful danger, by tempting us to devote our supreme attention and affection to what reason and Scripture both assure us are our inferior interests. It is really a startling fact, that the soul has this fearful tendency to give to things temporal the preponderance, and so to become absorbed in them as to make shipwreck of its highest good, even of its own immortality. This tendency becomes stronger in proportion as earthly treasures,—it matters not what they are: honors, profits, learning, social pleasures, domestic joys,—become multiplied. The soul pants for rest, for satisfaction, for some pursuit, some object on which it may find repose. In the full possession of all earthly good—with the five senses gratified to their utmost capacity—we have at last mournfully to say,

"But now I feel an aching void
The world can never fill."

This mighty and obstinate tendency of the soul, this determined bent of the affections for the seen and temporal, exposes every man to the fearful probability that he will suffer the creature to shut out the Creator—that he will permit time to eclipse eternity. The question now arises, how is this dangerous spell to be broken? How is this fatal proclivity to be arrested? I answer, just as God does break—just as he does arrest it. When we lay our heads upon the pillow of sensual indulgence, he plants a thorn in that pillow. When we sit under the pleasant shade of some vine, not knowing that its fruits are fatal, he causes the vine to wither in a night. When we build for ourselves a habitation, and so furnish and fill it that we say "this is my sweet home, soul take thy rest," he sends the tempest which unroofs it, or the bolt that shivers the walls. When we gather about us riches, and say "now I can want for nothing, I am provided for all future contingencies," then he gives wings to our riches and they fly away. When we clasp to our bosom those who are dearest and say, "now my cup of bliss is full," then the golden bowl is broken in our very hands, and our fountain of happiness is dry. And why all this? Is it, that we should be left without any object of pursuit or affection? Not at all. This would indeed be unworthy of the Divine wisdom and love. The thorn in the pillow was placed

there to awaken us from a sleep which would have deepened unto death; the vine was blasted that the juice of its tempting clusters might not prove delicious poison; the house was unroofed, that we might see heaven above—heaven so long shut out from the view and forgotten; the riches took wings, that we might seek durable treasure in heaven; the household idols were shivered, that we might be induced to make the everlasting God our portion.

JAMES SMITH.

Northumberland Co., Va.

LIGHT FOR THE HOMESTEAD.—In planting shade trees near the dwelling, care should be taken that none should be within twenty feet of it, and forty feet for some of the wide-spreading varieties. In the first place, when too close, they obstruct the sun, and the house is liable to become damp and unhealthy. In addition to this, branches hanging over roofs keep them moist, and facilitate their decay, and the spouting is apt to become obstructed by the falling of the leaves. These suggestions are intended particularly for the good man of the house, to whom we would say, in addition, that whilst we commend to him the consideration of the hints above given, we would most earnestly recommend to him, wherever he can find a suitable spot for them, to put out shade and ornamental trees and shrubbery, and vines of every description, using all due discretion, judgment and taste in their selection and disposition.

For the good housewife we have also a word to say in this same connection, and we do not think we can do better than to use the following language of the *American Builder*, upon a most important subject, which says:

"Do not arrange your house so as to violate God's first commandment. Give it many windows, and then, O housewife, keep your blinds open during the day and your curtains drawn aside. If you let the sun in freely it may 'fade the carpets' but if you do not it will be sure to cause ill health to the mothers and the children. The sun is a good physician. He has never had the due credit for his curative qualities—for the bright eyes and rosy cheeks that come from his healing bath. Do you know how puny is the growth of the potato vine along the darkened cellar wall? Such is the health of human beings living where the sun is intercepted by the window's drapery. So dark wall paper is not only gloomy, but it is physically unwholesome. Let in the sun, for with it comes forth cheerfulness and strength. A dark room is an enemy of good health, good temper, and good morals."

CAREFULNESS IN OLD AGE.—An old man is like an old wagon; with light loading and careful usage it will last for years; but one heavy load or sudden strain will break it and ruin it forever. So many people reach the age of fifty or sixty, or seventy, measurably free from most of the pains and infirmities of age, cherry in heart and sound in health, ripe in wisdom and experience, with sympathies mellowed by age, and with reasonable prospects and opportunities for continued usefulness in the world for a considerable time. Let such persons be thankful, but let them also be careful.

An old constitution is like an old bone—broken with ease, mended with difficulty. A young tree bends to the gale, an old one snaps and falls before the blast. A single hard lift, an hour of heating work, an evening of exposure to rain or damp, a severe chill, an excess of food, the unusual indulgence of an appetite or passion, a sudden fit of anger, an improper dose of medicine—any of these or other similar things, may cut off a valuable life in an hour, and leave the fair hopes of usefulness and enjoyment but a shapeless wreck.—*Selected.*

CARE OF CANARY BIRDS.—Hang the cage where the drafts do not strike the bird. Give canary and rape seed, plenty of fresh water, cuttle-fish bone, and clean gravel on the bottom of the cage often. Also, give the birds fresh water to bathe in every day. After they have bathed, remove the dish, which should be shallow. The room should not be over-heated. A little pepper occasionally regulates them. Do not give them cake or sugar. When moulting, feed them on rape seed slightly moistened. Hard boiled eggs and crackers grated are excellent. Bad seed will kill birds. Cabbage and sweet apples are good for them, and now and then an egg.

MANURE FOR COTTON.—One of our Southern exchanges gives the following result of an experiment in manuring for the cotton crop:

"Mr. G. Toombs, of Washington, Wilkes county, Ga., measured off forty-eight acres on his plantation in that county, and applied cotton seed and land plaster, at a cost of \$3.50 per acre, for manure. It was planted to cotton and cultivated in the usual way. Yield, forty-seven bales, weighing an average of 450 pounds. At 18 cts. a pound this crop grown on old land comes to \$3,807. The cotton gives for the labor and use of land over \$76 per acre, after paying for the cotton seed and plaster used as fertilizers.

"A compound manure, consisting of 1400 lbs. of good dry stable manure, 300 lbs. dissolved bones, 60 lbs. sulphate of ammonia, 40 lbs. nitrate of soda, and 200 lbs. green cotton seed—total, 2000 lbs.—paid better in Georgia last year, on cotton, than any commercial fertilizer in the market. In one instance a dollar's worth of this compost gave twelve dollars' worth of cotton above what no manure

produced. Intelligent, reading farmers and planters, manipulate their fertilizers on the plantation—improving their stable manure by sprinkling their horse stalls with plaster, and feeding their stock well with grain. Manure from stock that has plenty of grain, and which has 150 lbs. of plaster to a ton of tolerably dry droppings, is worth two or three times more than manure from fodder, hay or straw alone. At present prices, a skillful farmer can make manure enough for \$100 to increase his cotton crop \$1000 in a good cotton climate."

The Florist.

Floriculture, &c.—May, 1873.

Though the past winter has been one of long duration, with unusually low temperature, yet since the spring opened the season has advanced rapidly, and the work of planting has been crowded into a period of short duration.

In this latitude all plants for the flower beds and borders, as well as such half hardy kinds as have done blooming, ought to be removed from the green-house to cold frames, that plenty of space may be left for growing a stock of fine *Achimenes*, *Geraniums*, *Gesnerias*, *Gloxinias*, *Fuchsias*, &c.; and as the weather becomes settled, most of the hard-wooded plants can be put in a convenient cool and shady place, out of doors—but not in the drip of the trees. A convenient arrangement for plunging the plants is to prepare a bed of coal ashes a few inches deep in which to set the pots, thereby preventing the entrance of worms.

Vases on terraces, and hanging bakets for the veranda should be filled at once. Vines for this use should have a light and airy foliage, and too much of a mixture of varieties and colors should not be attempted.

It must not be forgotten that in growing plants under glass during the summer there are two conditions necessary to success—moisture; and partial shade; and that besides these a free circulation of air is required, as otherwise the plants will become weak and spindling. Care must be practiced to shift into larger pots before their roots become matted, all young *Begonias*, *Caladiums*, *Fuchsias* and similar stock. By attention now in training and pinching back when young a great gain is achieved.

Pleasure Grounds and Flower Garden.

This is now the season in this section best adapted for planting Evergreens—do not in planting them, either crowd them too close together, or place them too near the walks and drives. When each is so situated as to admit of its full proportions being attained the result is far more effective.

In bedding out flowers, bear in mind, in adopting the ribbon system, to choose the

tallest growing plants for the centre, or back of the beds, and graduate down to the outside rows. Clumps of Cannas, and groups of several kinds of *Ricinus* produce good effects by their conspicuous foliage and stately habits.

Dahlias should now be planted out. If the tubers are planted with their heads inclined at an angle of about 45 degrees, and the stems kept prostrate whilst young, finer and larger flowers will be produced than when tied up to stakes. They like rich deep soil and are partial to cow manure.

DOMESTIC RECIPES.

CRISP MUFFINS.—One pint sifted corn meal, one pint of milk or cream, two eggs, a teaspoonful of salt, a spoonful of butter or lard; drop the batter in a hot, greased pan or oven, by spoonful, taking care that your muffins do not touch. Let them bake till crisp and brown.

COFFEE CAKE.—One egg, one cup of sugar, one of milk, one good tablespoonful of butter, one teaspoonful soda, two of cream of tartar; as much flour as will make as stiff as a pound cake. Flavor with nutmeg to suit your taste.

COCOANUT CAKE.—One cup of butter, two cups of sugar, four eggs, one teaspoonful soda, two of cream of tartar in a cup of milk. One grated cocoanut should be mixed with flour, and the white of the eggs beaten to a froth. Flour enough to make as stiff as a pound cake.

BREAD MERINGUE PUDDING.—One pint bread crumbs, soaked in a quart of milk, one cup of sugar, yolks of four eggs, a piece of butter the size of an egg, and a little nutmeg. Bake in a pudding dish, and when cold spread preserves or jelly over the top. Beat up very light the whites of the four eggs and spread over the top of the preserves. Put in the oven and bake a very light brown. To be eaten cold.

BAKED ROCK FISH.—Rub the fish with salt, black pepper and a dust of cayenne inside and out. Prepare a stuffing of bread and butter, season with pepper, salt, parsley and thyme; mix an egg in it, and fill the fish with this and sew it up or tie a string around it; put it in a deep pan and bake it as you would a fowl. To a large fish add half a pint of water—you can add more for the gravy if necessary. Dust flour over the fish and baste it with butter. A large fish will bake slowly in an hour and a half, and a small one in half an hour.

ITALIAN WAFFLES.—Beat well together eight eggs, fourteen ounces of powdered sugar, and one pound of flour; stir in six ounces of cream, six ounces of milk, and one ounce of orange flower, and the peel of one lemon grated. Mix all together till there are no lumps in it and bake in waffle irons.—*The Table.*

SARATOGA CHIPS.—Slice raw potatoes and throw in cold water to remain over night. Have ready in a skillet, lard boiling hot, drain the potatoes and season with salt and pepper, and fry a light brown.

Fish Culture.

LOCATION FOR A FISH FARM.—That the choice of a location for a fish farm is a matter of vital importance to the pisciculturist is self-evident. The statement that any farmer who has a spring upon his place can at once enter upon the business at little cost of time and money, as experiment has too often proved, is scarcely correct. We have examined hundreds of streams and springs in various parts of our own and adjacent States, and though a few have been found to combine all the necessary requirements, many, from causes hereafter to be mentioned, were totally unfitted for the purpose. The requisites for a perfect trout farm are: 1. An ample and constant supply of pure cold water. 2. Sufficient fall for the construction of ponds and race-ways. 3. Protection from surface water. 4. Proper material for the construction of banks.

That an ample and constant supply of pure cold water is absolutely necessary must be apparent to all. For judging this, the only proper time is during mid-summer, when the supply is at its minimum and the temperature at its maximum. Try the water with a good thermometer (not one of those twenty-five cent abominations with which the energy of peddlers has stocked the country,) and if the temperature is above 65°, though in the air it may be in the nineties, it is unfit for fish culture. It is true that trout will thrive even at a temperature some five degrees higher, but it must be remembered that the water, in passing through the ponds during the summer season, has a most unpleasant habit of becoming hotter and hotter, and while spring head is at 60° lowest pond may be some ten degrees higher. Again we have found from careful research that the lower the temperature of the water to which the spawn are subjected during incubation, the more healthy the little fishes are likely to be; we say temperature of the water, for below 33° of course ice is formed, which is in most cases fatal to the vitality of the egg. The springs by which the hatching houses of our most successful establishments are supplied, range from 47° to 65°. It is true that by a low temperature the time of incubation is lengthened, but this is a matter of little importance. Again, with increased temperature comes increased danger; the fungoid growths, which, in spite of all our care, will sometimes appear in our hatching-trays or rearing boxes, are too often evidence of a too elevated temperature.—*Dr. J. H. Slack in Practical Trout Culture.*

THE APRIL REPORT of the Agricultural Bureau has been received. It embraces a large amount of useful information, but our space will not allow even a condensed sketch that would render a satisfactory view of its contents.

THE AMERICAN FARMER

AND

RURAL REGISTER.

COMPLIMENTARY.—A subscriber in Giles county, Va., whose April No. failed to reach him, says: "I have no idea of losing a copy of your valuable paper. I have just had bound the volume of 1872. Twenty-five years ago I took the A. F., and have 'Randall on Sheep,' which I got as a premium for a club I got up in Amelia county."

Two others in Rhea county, Tenn., writing their request for packages of corn, sign themselves as "your pupils and friends in agriculture."

Another in Charles county, Md., says that the farmers of that section are beginning to realize the importance of the hay crop for feeding on the farm, as there has been a great scarcity of provender, some having to buy hay in Baltimore, and of course to such as subscribe for the Farmer, your articles on the grasses are very interesting.

From Campbell county, Va., a subscriber, in sending for some of the Hudson corn, adds: "I will consider it a valuable acquisition if it proves to be half as valuable to me as the Farmer is. The members of Miss O'D.'s club are very much pleased with the Farmer, and I will venture that your list will increase largely next year, for every man will speak its praise to his neighbors. I will show you what I can do in the way of raising fine tobacco this year, provided the season is favorable."

In sending for some corn, a "beginner" in farming in Prince William county, Va., says he is a subscriber to the A. F. and ———, but "thinks the Farmer a much more valuable paper for this section; indeed, I could not get along without it."

An old subscriber, in Goochland county, Va., says: "In my opinion, the *new* more than sustains the high reputation of the *old* American Farmer." [The reason why, it has a strong infusion of the *young* blood.] The writer says of the Hudson corn, that he is inclined to think it is the same variety which was cultivated in this neighborhood some years ago as the Maryland twin corn, but which for want of care in selection, was allowed to lose its distinguishing features.

We could multiply to almost an unlimited extent similar remarks complimentary of the *Farmer*, but the above, for the want of room, must suffice for the present.

TRUSTEES MD. AGRICULTURAL COLLEGE.

—The following gentlemen have been elected as the Board for the ensuing year: Hon. Allen Bowie Davis, Montgomery Co., President; J. Howard McHenry, Balto. Co.; Allen Dodge,

Dist. Col.; James T. Earle, Queen Anne's Co.; W. D. Farnandis, Harford Co.; Edw'd Lloyd, Talbot Co.; W. D. Bowie, Prince Geo's Co.

"SLAUGHTER CORN."—We have received from Mr. R. S. Bell, Rappahannock Co., Va., sample ears of a corn bearing this name, which measure 13 inches in length, with a full large grain.

Personal Reminiscences.

(FOR THE BOYS.)

Our correspondent, W. H., of Calvert, renews the discussion of the question propounded in our last volume by Mr. Newton, of "What Shall We Do?" and an incidental remark which he makes as to our position as an "educator" of the people, forcibly arrested our attention, and brought to mind our cogitations while confined to our bed during the month of March from the effects of a cold—the first time in our life, we may say, that we were fairly taken off our feet. Blessed as we have been with so many mercies above the most of our fellow-creatures, our good doctor promised that this sickness also would be a "blessing in disguise," if we would take care not to expose ourself too hastily to risk of relapse, and in accordance with his advice, although the disease was really broken in a few days, we enjoyed our ease to the fullest extent, and had ample leisure to pass in review before the eyes of our mind the scenes and events with which we were connected, or of which we were a witness, during a long, and on the whole, a very pleasant life, up to the time when we were within a few weeks of entering our 74th year.

Amongst the earliest of our recollections are our school-boy days, at the ancient capital of our State, and we wondered how many were still in the land of the living of those who, in the galleries of old St. John's College, knelt at the prayers daily read by Parson Judd, then its principal, or formed with us the classes in the department of the three R's, (Reading, 'Riting and 'Rithmetic, as defined in the toast of the old school-master,) where we enjoyed the counsels of the venerable Owen. We can remember now but two of these "boys;" one, the distinguished jurist, statesman and diplomat of our city and State, the Hon. Reverdy Johnson, (then our senior by some years,) and the Hon. George Wells, formerly senator from his county in the legislature of Maryland, and now, and for more than a quarter of a century, the faithful President of the old Farmers' Bank.

That to which, however, we particularly wish to refer in this connection, is the idea alluded to by our correspondent, and to which we ask the attention of the youth under whose eye this may fall. The remark, in its broad sense, is correct, as in the long course of time in which we have been a conductor of the public press, we have been the medium

of dispensing to millions, probably, instruction upon almost every subject pertaining to every-day life, for we have, in our time, printed, published, or edited newspapers and periodicals specially devoted to farming, to commerce, to general literature, to temperance, to politics, and to general news, in which all other subjects were more or less discussed. Our agricultural journals especially distributed the lessons they contained all over our wide-spread land. And here it is that we wish to make our point—that if such has been our mission, and many of our friends testify that we have done our work faithfully and effectually, then our young friends will probably be surprised to learn that at the very *mature* age of *eleven* years we "finished" our education, as the young ladies of the present day would say, and left the political capital of the State, where we were born, for its commercial metropolis, with a widowed mother, who, having been left with eight children, (six of whom were girls,) in view of her limited income for their support and rearing, deemed it advisable to venture upon the change. We landed in Baltimore from the good sloop "John Barber," (steamboats were not known in those days on the grand old Chesapeake,) in 1811, the year preceding the declaration of war with Great Britain. At this date we were without a friend upon earth upon whom we could call for assistance or advice, but mentioning to an old gentleman from whom we had temporarily rented a small house, our desire to learn a trade, he referred us to an advertisement in his paper of an apprentice to the printing business being wanted at the office of the Baltimore "*Whig*." We lost no time in applying, were accepted, and within three days after our entry into the city, were formally inducted into our new quarters to learn the "art preservative of all arts," and we have ever since felt a high pride in being a member of the craft. The *Whig* was then published by Irvine & Barnes, into the family of the latter of whom we were kindly received, and in which we remained until Mr. B. left the city and established himself in Frederick, Md. The paper, after a change of proprietors, was finally discontinued, and we served out the remainder of our apprenticeship (six faithful years, including the last year or two of the war,) in the office of the Baltimore *American*.

After we left school at Annapolis, we never passed a day as a pupil within the walls of any institution devoted to the instruction of youth, any further literary education we received having been acquired in one of the best of schools, the printing office.

We state these facts for the encouragement of our young friends who may be about launching their barks upon the waves of life, and if space permitted we could amplify upon the subject, to the entertainment, we think, of both old and young, by introducing many scenes which we have witnessed in our extensive acquaintance during a somewhat protracted life, with men and public affairs.

One word more. We see the question is mooted in some of the printers' journals as to who is the oldest of the craft now upon the stage. We cannot claim to be the "champion" in the contest, but by way of comparing notes we would say, that in 1811 we first entered a printing office as an apprentice; in 1816 we were, before being "free," foreman of the office in which we served, continuing in that position until we began business for ourself. Our apprenticeship expired in 1817, and in 1819 we were married, our companion being 18, and we 19 years of age; at 20 our first of eight children was born to us; at 22 we purchased an office, and published and conducted a literary paper called the *Saturday Herald*; afterwards we conducted with General Leakin the *Daily Chronicle*, and subsequently several other journals devoted to special objects. About 1832 we first became connected with the agricultural press, and have ever since been engaged in that line, nearly all the time with the *American Farmer*, with which we expect to close our career as printer, publisher and editor.

s. s.

The Troubles of Farmers.

An old friend of the Farmer, who says very positively that he writes privately, and not for the public gaze, in a note upon other matters, takes occasion to speak as follows, and we (omitting his name) venture to give it to our readers:

"I am much gratified to learn that Mr. Newton's health has so much improved, that we may again look forward to his able contributions to your valuable journal.

"Mr. Newton is a scientific, practical farmer, and notwithstanding his contributions are somewhat political, they nevertheless strike at the root of all our agricultural difficulties, viz., the financial condition of the country. The interest upon money is too great, the farmer cannot pay it—consequently the money of the country has to seek other investments than in land. The farmers of the country must become mere menials and slaves, and our lands will be divided into minute portions, and let to the present owners, and each member of a family will have to labor for a bare subsistence. Was black slavery any worse?

"Fairs and public exhibitions of the product of the soil, would have given to the agricultural interest a powerful impulse, but their utility for good, has been destroyed, by their becoming sporting places—for horse racing and gambling saloons. I have been farming forty years, and many would call me an old fogey—but I can see the times are sadly demoralized. This is private—I do not write it for the public."

We learn that at several large public sales at the West, of Short-horns, excellent prices were generally secured.

THE VIRTUE OF CLOVER.—The Live Stock Journal shows, in a nut-shell, how this plant enriches the land: "Clover, if we could only impress the fact upon the general farmer, is a plant that draws from the atmosphere and enriches the land. Other plants do this; but clover more. It has to do with the most vital and important element in manure, nitrogen, the very thing that is the rarest and most difficult to obtain. It improves the soil by its roots alone, if the crop is used for other purposes; this even if a seed crop is taken. How much more benefit, then, if a whole crop is turned down containing so much nitrogen? And you have the manure without working for it. The plant works for itself and for you. We get its strength from a free source, the atmosphere, the great storehouse that gathers from all sources, but most for the energetic farmer.

And you can make this plant work for your poor soil. A little manure applied on the surface will do this, and if plenty of seed is sown there will be a thick set. Then it needs a chance with the atmosphere, and plaster will add this greatly. With warm showers there will be a growth almost surprising. It will be dense, fine stemmed, and of a fair length, depending somewhat on the season. Cut this when it begins to lodge, which will be about the time blossoms appear, and then will be avoided all rot or mildew consequent on long, coarse lodging, and the yield will surprise you—two and a-half or three tons, and such hay is not made from any other plant. And the second crop will be nearly or perhaps quite as good as the first."

Do not let the stock on the clover fields. Let it get a good start—for saving it up in the spring, you will be amply repaid in the summer; but young clover plants eaten down too early will be always weak. And do not let the cattle on pastures or meadows when they are wet. It does them no good, as the little they get of the young grass will only give them a disliking for their food, and the grass roots will be greatly injured. Nothing is more injurious to young grass than trampling down in the spring when wet.

If there are any bare spots in your newly laid down clover fields, let them be seeded anew now, there is no time to be lost.

IMPORTS OF WOOL.—The heaviest imports of wool into Boston since 1863 were those of the present year, when the stock aggregated 39,651,990 pounds. Of this amount 11,300,386 pounds were from Buenos Ayres. These figures calculated for the first three-quarters of the year. During the same time in 1871 the amount was 38,144,150 pounds. In 1853 the quantity was 14,147,478 pounds. The value of the wool destroyed by the late fire is estimated at \$4,500,000.

Baltimore Markets, April 21.

Breadstuffs—Flour—Howard St. Super, \$5.00 a5.00; common to fair, \$4.25a5.75; do. good to choice do., \$7.00a7.50; do. Family, \$7.75a8.50; Ohio and Indiana Super, \$4.75a5.75; do. common to fair Extra, \$6.25a6.75; do. good to choice do., \$7.00a7.50; do. Family, \$7.75a9.00; City Mills Super, \$5.00a5.75; do. low to medium Extra, \$7.00a8.00; Rio brands do., \$9.00 a9.25; City Fancy brands, \$11.00a11.50; Fine Flour, \$4.25a4.75; Rye Flour, \$4.75a5.25; Corn Meal, \$3.15a 3.25.

Corn—Receipts large and prices higher. Southern White, prime, 67a68 cents; do. Yellow, 64a65 cents; Western mixed, 65 cents.

Oats quiet. Sale of Southern, 48a50 cents, and Western at 47 cents.

Rye—Market quiet at 85a96 cents.

Broom Corn—Market ranges from 3 to 6 cents, latter for choice.

Cotton quiet. We quote good ordinary at 16¼a 16½ cents; low middling, 18a18½ cents, and middling, 18½a19 cents.

Hay and Straw—Penna. Timothy, \$30a32; Maryland, \$35a37; Rye straw, \$29; Oat straw, \$22; Wheat straw, \$18 per ton.

Live Stock—Beef Cattle—Market more brisk. We quote best on sale, 6¼a7½ cents; generally rated first class, 5¼a6¼ cents; fair quality 5a6 cents; ordinary thin steers, oxen and cows, 4a5 cents.

Hogs—Still fed, 6¼a7 cents; corn fed, 7a7½ cents net.

Sheep—Receipts larger. Fair to good, unshorned, 5¼a6½ cents; Wool sheep, 6¼a7½ cents, gross; Lambs in demand at \$4a6 per head.

Mill Feed—City Mills Brown Stuff, 34a35 cents; Middling, light, 37a38 cents; heavy, 40a45 cents.

Molasses—Muscovado, 33a38 cents; Porto Rico, 45a57 cents; New Orleans, 75a80 cents. **Syrups**—Calvert, 55a60 cents; Maryland, 45a47 cents; Canton Sugar House, 22 cents per gallon, in bbls.

Potatoes—Receipts large and prices lower. Early Rose and Goodrich, \$2.25a2.75 per bbl.; White Peach Blows, \$3.50 per bbl.; Maine Carters, 90 cents per bushel from the vessel.

Provisions—Bulk Shoulders, 7½ cents; Rib Sides, 8½ cents; Clear Rib Sides, 9½ cents; Bacon, Shoulders, 8 cents; Rib Sides, 9½ cents; Clear Rib Sides, 10 cents; Hams, 13a16 cents; Lard, 10a12 cents; Mess Pork, \$17.50a18.00.

Rice—Carolina, 9 cents; Rangoon, 8 cents.

Salt—Ground Alum, \$1.65a1.75 per sack; Fine, \$2.65a2.75 per sack; Turk's Island, 40 cents per bus.

Seeds—Clover Seed, \$5.25a5.50; Timothy, \$3.25a 3.50; Orchard Grass, \$2.50; Ky. Blue Grass, \$2.75; Flax Seed, \$2.00.

Tobacco—Market dull. Md., sound to good common, \$6.50a8; do. good to fine brown, \$10a12.50; do. fancy, \$14a20; Va., common to good lugs, \$8.75 a9.75; do. common to medium lugs, \$9.50a11.50; do. good fine leaf, \$12a13; do. selections, \$13.50a14.50.

Whiskey—92 cents for Western.

Wool—Market dull. We quote burry, 25a30 cents; good unwashed, 35a36 cents; pulled, 38a39 cents; fleece washed, 53a56 cents; tub washed, 55a60 cents.

NEW ADVERTISEMENTS.

Don't Grant Emory—Washington Life Insurance Co.
Wm. Holmes—Maryland Britannia Works.
Joshua Thomas—Buckeye Mower and Reaper.
Thomas Norris & Son—Agricultural Implements.
E. Sinclair & Co—Agricultural Implements.
Prof. Norman's B. B. B. Exterminator.
C. T. Kuster—Portable Gas.
J. W. Kerr—Nursery.
American Farmer—Second-hand Machinery for sale.
J. Howard McHenry—Sale of Cattle and Swine.
Geo. P. Steinbach—66 styles Children's Carriages.
Chas. T. Allenbaugh—Plumber and Gas Fitter.
Charles E. Coffin—Short Horns, Berkshire Pigs.
John S. Reese & Co.—Soluble Pacific Guano.
V. O. Karsckson—Lumber Dealer.
Linton & Lamott—Agricultural Implements.
Larmour & Co.—Watches, Jewelry, &c.
Farmer Office—Improved Cattle.

Public Sale of Cattle and Swine.

The undersigned will sell, without reserve, at Daniel Cooke's Stables, Paca and Pratt Streets, Baltimore, Md., on Thursday, the 15th day of May, at 10 o'clock, A. M., the imported Jersey Bull, CLEMENT, (61 R. I. A. S. H. B.), (115 A. J. H. R.), dropped 1866, imported 1868; one or more young JERSEY BULLS; from fifteen to twenty grade and native COWS and HEIFERS, many of them in calf by a pure Jersey bull; and a number of pure Berkshire or crossed Berkshire and Essex PIGS.

Catalogues will be furnished early in May, for which apply to

J. HOWARD McHENRY,
Pikeville, Baltimore Co., Md.,

F. W. BENNETT, Auctioneers,
May-1t. S. Charles Street, Baltimore.



66 STYLES 66
OF
CHILDREN'S CARRIAGES;

From \$3 to \$75 Apiece.

My I X L COACHES excel any other style in elegance and durability. Besides these, I keep all other approved styles.

It is to your interest to go where you find the largest assortment.

Also, TWELVE STYLES OF

FIELD CROQUETS.

Of the very best, well seasoned wood. Also, BEAD, REGULATION, and other

Base Balls and Bats.

RUBBER BALLS. FANS, BASKETS, PERFUMERY, POCKET BOOKS, TRAVELING BAGS, TOPS, MARBLES, ROLLING HOOPS, PIPES, Etc.

Write for printed Catalogues.

GEO. P. STEINBACH,

Importer of Fancy Goods and Toys,

"Marble Building," 216 and 218 W. Baltimore Street, near Charles.

ADVERTISING SHEET.

BUCKEYE MOWER AND REAPER



Still leads the van. The past harvest the Buckeye was subjected to the most thorough tests in all conditions of grain, and notwithstanding the combined opposition of the whole Mower and Reaper fraternity, this old and faithful farmers' friend came out with flying colors, and thus added fresh proofs of its simplicity, utility and durability. We ask especial attention to our **MILLER'S TABLE SELF-RAKE AND REVOLVING DROPPER, REAPER ATTACHMENTS**, as being simple, durable and complete.

SWEEPSTAKES THRESHER, with CAREY or CLIMAX POWERS, (either mounted or down.)

The above Thresher and Cleaner and Horse Powers are again offered to farmers and threshermen as possessing all the latest improvements, and we are prepared to convince the most skeptical that they will thresh and clean more grain in less time, better and with more ease to team, than any machines of their class in the market.

**JOSHUA THOMAS, General Agent,
35 North street, Baltimore, Md.**

Also, General Agent for the **HAGERSTOWN WHEEL HORSE RAKE** and **KELLER DRILL** and **GULLETT COTTON GIN**, and Dealer in **Millstones, Bolting Cloths, Smut Machines, Belting, &c.** may-6t

Short-Horns FOR SALE.

Haying largely increased my herd by recent purchases and importations. I am now prepared to fill orders for **SHORT HORNS** of either sex. I am now using in my Herd the "Bates" Bull "Sixth Earl of Oxford" 9084; the pure Booth Bull "Royal Briton" (27,351); the Booth Bull "Lord Abraham" 11,223; the Princess Bull Lord Mayor 6,969. This gives me a combination of the best **SHORTHORN** blood in the world. I have Calves the get of Fourth Duke of Geneva 7,931; Plantagenet 8,795 Salamander 9,046, &c., &c., &c.

I also breed **BERKSHIRE PIGS**, and have some very superior young Pigs for sale. I can ship animals to any part of the country with ease, as my farm is on the Washington Branch of the Baltimore and Ohio Railroad, 15 miles from Washington and 23 miles from Baltimore, and all way trains stop directly at my place. Royal Briton will serve a few cows other than my own at \$250 each—no charge for keep. I shall be pleased to show the stock to all persons interested. Send for catalogue to

CHAS. E. COFFIN,
Muirkirk, Prince George's co., Md.

BERKSHIRE PIGS.

PRICE REDUCED

Nice Berkshire Pigs for sale at \$30 per pair at 8 to 10 weeks old, boxed and delivered at Express Office. Send cash with order.

CHAS. E. COFFIN,
my-12t Muirkirk, Prince George's Co., Md.

Second-Hand Machinery for Sale.

The owner having no use for the following second-hand Machinery, &c., will sell them at the following prices. All are made of the best material and workmanship, by R. Sinclair & Co., viz:


1 One-horse **ENDLESS CHAIN HORSE POWER**, good as new, price \$65.

1 25 inch Spiral **THRESHING MACHINE**, good as new, price \$80.

1 One-horse **CORN DRILL**, for drilling Corn, Peas, Beans, Beet Seed, &c., in fair working order, price \$15.

1 Three-horse **WILEY PLOW**, in fair working order, price \$5.

The prices named are about 50 per cent. less than manufacturers' prices.

 The Endless Chain Power exerts as much power as two horses do on a lever, and is very handy for driving a Threshing Machine, Corn Sheller, Sawing and Boring Machine, Chaff Cutter, &c. **TERMS CASH.**

Apply at the **AMERICAN FARMER OFFICE** my 1t

PROF. NORMAN'S B. B. B. EXTERMINATOR.

Kills all insects on Man, Beast or Vegetation. The only Exterminator that will kill insects on Cattle, &c., and no danger of taking cold, as it contains no poison. Sample sent on receipt of 25 cents.

AGENTS WANTED.
Address, **B. B. B.,**
my-3t 107 Baltimore Street, near Sun Building, Md.

Improved Breeds of Cattle.

A number of Short-Horn, Jersey and Devon **BULLS** and **HEIFERS** for sale, at the **FARMER OFFICE.**

THE AMERICAN FARMER

**WASHINGTON LIFE INSURANCE CO.
OF NEW YORK.**



CYRUS CURTISS.....PRESIDENT.

Assets January 1, 1873..... \$3,426,203 27
Liabilities—Cash reserved for Policies,
\$2,913,102 00
Liabilities for claims due, 70,141 74 2,983,243 74
SURPLUS..... \$442,959 53

PLAN OF BUSINESS.

Premiums required in Cash.
Dividends are not forfeitable and are paid in Cash.
Assets are held in Cash.
Policies are paid in Cash.
The first question for a prudent man to ask, in determining the merits of an Insurance Company, should be: Is it trustworthy and responsible? The entire history of this Company has shown that its solidity is unquestioned; no imputation to the discredit of its management having ever been uttered.

DAN'L GRANT EMORY,

Manager for Maryland and District of Columbia,
my-1y 32½ ST. PAUL STREET, BALTIMORE, MD.

**MARYLAND BRITANNIA
AND
GOLD AND SILVER PLATE WORKS.
ESTABLISHED 1850.**

W M. HOLMES,
SALES ROOMNo. 3 NORTH CHARLES STREET.
Office and Factory, Nos. 50 and 52 Holliday street,
BALTIMORE, MD.

Repairing and Replating done so as to look equal to new ware.

may-1y

LINTON & LAMOTT,

Nos. 70 and 72 NORTH STREET, BALTIMORE, MD.

DEALERS IN

Agricultural Implements and Machinery.

Large Stock of HORSE POWEBS, GEISER'S SEPARATORS, JOHNSON'S
SELF-RAKE REAPER, MOWERS, DRILLS and RAKES.

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NURSERIES OF J. W. KERR,

(Formerly KEMP & KERR.)

Denton, Md.

An immense Stock being prepared for the Fall trade. The largest collection in the State, embracing all the desirable market varieties of each class, as well as the novelties. All the operations in the Nursery are conducted under the personal management of the proprietor, whose attention is exclusively devoted thereto, in order that the generous patronage bestowed may be rewarded by getting exactly what is paid for. "Price Lists" will be ready August, and mailed free to all applicants. my-1t

CHARLES T. ALLENBAUGH,

PRACTICAL

PLUMBER and GAS FITTER,
184 Pearl Street, near Penna. Avenue,
BALTIMORE.

Iron and Lead Pipes, Hydrants, Bath Tubs, Water Closets, Basins, Sinks, &c. Gas Fixtures of all kinds. Stoves and Ranges repaired. Jobbing promptly attended to at reasonable prices. Particular attention given to Country work. may-1t

ADVERTISING SHEET.

Seasonable Agricultural Implements & Machinery.

R. SINCLAIR & CO.,

62 LIGHT ST., BALTIMORE, MD.

MANUFACTURERS OF ALL KINDS OF

FARM MACHINERY

AND

Agricultural Implements

AND GROWERS AND IMPORTERS OF

GARDEN AND FIELD SEEDS, &c.,

Offer for sale a large stock of

LABOR-*SAVING* IMPLEMENTS AND MACHINERY,

Including in part, as particularly suitable for the coming Harvest,

The "Advance Mower" or "Improved Monitor,"

The simplest, strongest and most efficient Mower in the country.

**The "New Yorker" Self-Rake Reaper and Mower
and Reaper only.**

Reapers of the most approved and Improved Patterns always
on hand.

Ithica Sulky Self-Discharging Hay and Grain Rake, the best in use.

"Philadelphia" Hand and Horse Mowers,

Rogers' Patent Harpoon Horse Hay Rake.

"Buckeye" Sulky Cultivator, for Corn, Tobacco and Cotton.

SINCLAIR'S SOUTHERN IRON BRACE GRAIN CRADLES.

HAY TEDDERS, most approved patterns.

THOMAS' SMOOTHING HARROWS, for cultivating Corn, &c.

Also an unusually large and varied stock of well known and thoroughly
tested **MACHINES** and **IMPLEMENTS**, which we guarantee to give
satisfaction to Farmers and Planters.

R. SINCLAIR & CO.,

62 Light Street, Baltimore.

THE AMERICAN FARMER

THOS. NORRIS & SON,
MANUFACTURERS AND DEALERS IN
Agricultural Implements
Field and Garden Seeds, Fertilizers, &c.

Would call special attention to the following first-class Machines, &c.:

Westlinghouse Threshers and Cleaners.

Aultman & Taylor's Threshers and Cleaners.

Lever and Railway Horse Powers—most approved.

Van Wickle Wheat Fan. Price \$37.

American Cider Mill and Press—the best—\$40.

Our new Acme Plough.

Bickford & Huffman Grain Drills,

Plows, Harrows, Cultivators, Straw Cutters, Corn Shellers, and all kinds of Farming
Tools. Fresh Field and Garden Seeds, Pure Ground Bone and other Fertilizers.

CUCUMBER PUMPS,

WITH PORCELAIN LINED IRON CYLINDERS.

We are prepared to furnish, wholesale and retail, the best and cheapest Cucumber Pumps
in the country, to suit all purposes, from the small cistern to the deepest well.

Send for Descriptive Circular and Price List.

THOMAS NORRIS & SON,
141 Pratt st., Baltimore, Md.

For Harvest, 1878.
W. A. WOOD'S WORLD-RENOWNED
SELF RAKE REAPER,
WITH AND WITHOUT MOWING ATTACHMENT.

W. A. WOOD'S MOWING MACHINES,

Universally acknowledged as good as, if not superior to, any others in use. The above Ma-
chines have taken more FIRST PREMIUMS in this country and in Europe than any other
Reaping and Mowing Machines extant. Send for Descriptive Circulars. For sale by

THOMAS NORRIS & SON, Agents,

may-ly 141 Pratt street, Baltimore, Md.

Pacific Guano Company's SOLUBLE PACIFIC GUANO.

JOHN S. REESE & CO.,
No. 10 SOUTH STREET, BALTIMORE, Md.,
GENERAL AGENTS.
CAPITAL.....\$1,000,000.

The use of this Guano since its introduction in 1864, and the annual increase of its consumption from a few hundred tons the first year of its use, to many thousands of tons, is the best attestation to its value as an efficient agent for the increase of the products of agricultural labor, as well as to the integrity of its production.

The large capital invested by this Company in this business, and its unusual facilities, enables it to furnish a fertilizer of the *highest excellence* at the *lowest cost* to consumers.

It is the policy of the Company to furnish the best fertilizer at the lowest price, and look to large sales and small profit for reasonable returns on Capital employed.

This Guano is sold by Agents of the Company in all the markets of the Middle, Southern and Gulf States.

Price in Baltimore \$50 per Ton 2000 lbs.

may-6t

JOHN S. REESE & CO.

V. O. EARECKSON, **LUMBER DEALER,**

West Falls Avenue, first Yard South of Pratt St. Bridge.

Building Lumber, Shingles, Laths, Palings, **FENCING, &c.**

LIME, BRICKS, SASH, DOORS AND MILL WORK,

may-1y

AT THE LOWEST PRICES.

Important! **PORTABLE GAS! PORTABLE GAS!**

Kuster's Non-Explosive Gaslight Fluid!

Cheapest, Safest and best Light in the World, giving a light equal to Coal Gas at the cost of one-half cent per hour! The lighting of CHURCHES, HALLS and STORES a SPECIALTY. The **Petroleum Fluid Stove** is found superior in the satisfactory and rapid manner in which it does its work—always ready and under momentary control. For Broiling Steak, Fish or Game it is unsurpassed. For Baking of Bread, Cakes and Pies, no oven with any other fuel in the world equals it. *Call and see for yourselves.*

C. F. KUSTER, { Successor to F. G. PALMER, and
late U. S. Portable Gaslight Co.,
my-12t **No. 9 South Gay street, Baltimore, Maryland**

THE AMERICAN FARMER

GROVER & BAKER SEWING MACHINE COMPANY

**17 N. Charles Street,
BALTIMORE, MD.**

Buy one of their improved
"LOCK STITCH" or "ELASTIC STITCH"
Sewing Machines,

THE VERY BEST IN USE.

They combine the elements of

**BEAUTY,
DURABILITY,
SIMPLICITY AND
USEFULNESS.**

Either style embodies all the latest and most useful attachments and improvements.

The Grover & Baker Sewing Machine Company,

Is the only Company that afford the purchaser a Choice of Stitch.
They make Two Distinct Machines,

"Elastic" and "Lock-Stitch."

SALESROOMS,—17 N. CHARLES STREET,

sp-ly

BALTIMORE.

TO TOBACCO PLANTERS!

1873.



1873.

Fourteen years' experience in the growth of Tobacco in Maryland and Virginia has demonstrated beyond doubt that "EXCELSIOR" has no competitor in the growth of that staple. It is the unanimous opinion of the Tobacco planters of Maryland "that from the application of EXCELSIOR the crop is heavier and of finer quality, cures earlier and better, and is not so liable to suffer from drought as from Peruvian Guano." We refer to every Tobacco Planter in Maryland. Uniformity of quality guaranteed by the manufacturers.

PRICE \$80 PER TON.

J. J. TURNER & CO., 42 Pratt St., Baltimore, Md.

CAUTION—The popularity of "EXCELSIOR" as the only reliable substitute for Peruvian Guano has induced unscrupulous parties in this and other cities to use the name "Excelsior" to sell their worthless compounds. Every bag of genuine "Excelsior" has our name on it in **RED LETTERS**. All others are counterfeits.

Send for Circular containing testimonials.

ap-3t

JOHN C. DURBOROW,

GENERAL AGENT FOR

THE KIRBY MOWERS and REAPERS,

AND DEALER IN

AGRICULTURAL IMPLEMENTS,

Cucumber Pumps, Seeds, Fertilizers, &c.

COE'S Unrivalled SUPER-PHOSPHATE, \$50 per Ton.



N. B. The BALTIMORE SELF-RAKE on the KIRBY REAPER and MOWER received the Diploma at Maryland State Fair, the Diploma at Frederick Co. Fair, Oct., 1872; the Kirby two-wheel Mower received First Premium at Carroll Co. and Frederick Co. Fairs, and First Premium at Virginia State Fair held at Richmond Nov., 1872. Simple, strong and durable. Positively no side draft and no weight on horses' necks. Extras and Repairs constantly on hand.

Send for circular and price list.

JOHN C. DURBOROW,

64 SOUTH SHARP STREET,

NEAR PRATT, BALTIMORE, MD.

THE AMERICAN FARMER

MORO PHILLIPS'
GENUINE IMPROVED
SUPER-PHOSPHATE OF LIME.
STANDARD GUARANTEED.

Reduced in price, and improved in quality by the addition of Potash. This article is already too well known to require any comments upon its Agricultural value. Thirteen years' experience has fully demonstrated to the agricultural community its lasting qualities on all crops, and the introduction of Potash gives it additional value.

PRICE \$50 PER TON, 2000 LBS. Discount to Dealers.

PURE PHUINE.

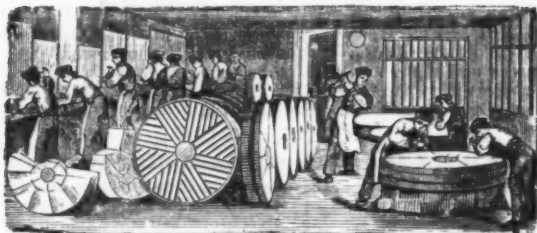
SUPERIOR TO PERUVIAN GUANO. Patented April 29, 1860. Manufactured by MORO PHILLIPS.
PRICE \$50 PER TON, 2000 LBS. Discount to Dealers. For sale at Manufacturer's Depots:

110 S. DELAWARE AV., Philadelphia, Pa.
95 SOUTH STREET, Baltimore, Md.

And by Dealers in general throughout the country. Pamphlets mailed free on application.

ap-1y

MORO PHILLIPS, Sole Proprietor and Manufacturer.



MORRIS & TRIMBLE,

Proprietors of the old original

**Baltimore Burr Mill-
stone Works,**

Established 1815,

Importers, Manufacturers and Dealers
in

**French Burr and other
MILLSTONES.**

BOLTING CLOTHS,

Best quality **AXER BRAND**, by the piece or cut to order, and sent by express to any Station on Steamboat or Railroad lines. **SMUT MACHINES, BELTING** and Mill Furnishing Goods generally.

WEST FALLS AVENUE,

NEAR PRATT STREET BRIDGE.

ap-121

BALTIMORE
RETORT AND FIRE BRICK WORKS.
GEORGE C. HICKS & CO.

MANUFACTURERS OF

CLAY RETORTS, TILES, FIRE BRICK,

VITRIFIED STEAM-PRESSED

Drain and Sewer Pipe, Stove Lining, &c.

ap-1y

Manufactory, Locust Point, Balto. Office, 4 S. Holliday St.

GRASS SEEDS,
Cement and Plaster.

CLOVER, TIMOTHY, ORCHARD GRASS SEED.

GENUINE ROSEDALE CEMENT,

CALCINED AND LUMP PLASTER,

LARGE STOCK CONSTANTLY ON HAND.

J. HENRY GIESE,

21 Spear's Wharf, foot of Gay street.

dec-6t

THE Old Established Depot for Standard Fertilizers.



EXCELLENZA SOLUBLE PHOSPHATE

Unsurpassed for all Spring Crops.

Price \$50 per Ton in Baltimore.

EXCELLENZA TOBACCO FERTILIZER,

The BEST of all Tobacco Fertilizers.

Price \$60 per Ton in Baltimore.

We sell also other standard brands of SUPER-PHOSPHATE as well as BONE DUST.

GEO. DUGDALE & CO.,
44 South Frederick street, Baltimore.

mar-3t

IMPORTANT TO FARMERS, DAIRYMEN AND COUNTRY MERCHANTS!

FLETCHER E. MARINE, GENERAL COMMISSION MERCHANT.

ESTABLISHED 1855.

No. 51 West Pratt street, Baltimore, Md.

Dealer in Flour, Meal, Grain and Feed, Hay and Straw, Dried Fruit, Butter and Cheese, Guano and other Fertilizers, also Lumber, Staves, and Tan Bark.

Consignments of produce, &c., respectfully solicited. Our charges are only the customary commission and the legitimate expenses of transportation and handling in the city.

FLETCHER E. MARINE,

No. 51 W. Pratt street Baltimore, Md.

je-1y

DANA BICKFORD'S NEW IMPROVED FAMILY KNITTING MACHINE

Perfection in work and simplicity of construction have been attained in this Machine. It knits both circular and flat web with perfect selvage edge, making a perfect hand-stitch. It narrows and widens, knitting heels and toes of stockings to perfection, with ribbed or plain stitch, and is a Crocheting as well as Knitting Machine. It makes all the intricate fancy stitches of the crocheting-needle better than hand-work. It is so simple that a child can operate it, and the rapidity of its work is truly wonderful—20,000 stitches per minute.

This Machine has carried the FIRST PRIZE at the Maryland State Fair, Maryland Institute, and Virginia State Fair, this Fall, and was the principal attraction at all of them. They are more valuable in the family than the Sewing Machine. Price, \$25 and \$35. Send for Circulars. Agents wanted in every part of Maryland. Liberal terms. Address

J. A. HAMILTON, General Agent for Maryland,
47 NORTH CHARLES STREET, Baltimore.

may-1f

THE CHAMPION EARTH CLOSET.

Having selected the new CHAMPION as being the very best and cheapest Earth Closet made, and accepted the Agency of it, I am now ready to furnish the public with 5 styles.

No farmer or person living in villages can afford to be without the Earth Closet. Looked at in the light of convenience, comfort and economy, it is far beyond the water closet, having all the advantages of the city water closet and none of its disadvantages, being perfectly without odor.

Send for Price List and Circular to

J. A. HAMILTON,
47 N. Charles street,
BALTIMORE.

may-1f

COE'S Super-Phosphate of Lime

BALTIMORE, Md., January 8th, 1873.

MR. ANDREW COE, BALTIMORE.

Sir :—In answer to your note of 17th Dec., 1872, asking me to inform you of the effect of the three tons and a half of your Super-Phosphate of Lime, purchased from you the past Spring and Fall, had upon my crops, I will state the effects as briefly as I can:

Having used your Fertilizer on my crops in 1871, with much satisfaction, *particularly on potatoes*, I purchased no other kind the past season.

Having on hand a small quantity of another fertilizing compound, of popularity among farmers, which cost \$60 per ton, I determined to test its *relative* value with your Super-Phosphate of Lime, and on the 3d June last I fertilized a row of potatoes, (King of the Earlies,) 90 yards long, about the middle of a small lot of good ground; the rest of the lot was fertilized with your Super-Phosphate of Lime. I instructed my farmer, who is an excellent seedman, to put an *equal quantity*, as near as he possibly could, of the two kinds of Fertilizers on each row, as I intended to test the *relative* value of the two kinds of Fertilizers, to find out which was the cheaper of the two. I was present at the planting and marked the row. I was present also at the digging of this and an adjoining row; and was very particular in keeping the product of each row separate. The row fertilized with your Super-Phosphate of Lime produced 137 lbs., and the other produced but 126 lbs. Taking yours at \$50 per ton, the other is 20 per cent. higher, at \$60 per ton; and, therefore, to have returned me at an equivalent for my outlay, should have produced me 20 per cent. more of potatoes, which would have been 164.40 lbs. instead of 126 lbs.; or in other words, a fraction more than 30 per cent. *below* an equivalent in value, compared with your Super-Phosphate of Lime. I put it on my wheat this Fall, about a bag of 167 pounds per acre, and my wheat looks quite as promising as any on the Liberty road, between my farm, 14 miles out, and the city of Baltimore.

There was another demonstration on my farm, the past season, of the relative value of these two Fertilizers on potatoes. I rented two acres of land to two neighbors on shares. The lot faced the south; I plowed it in one land; the north part from the finishing furrow, 29½ rows, was planted 25th May, and fertilized with Coe's Super-Phosphate of Lime; the south part, 32 rows, was planted 29th May, and fertilized with an *equal* quantity of the \$60 per ton compound; it should be borne in mind that the south part had the advantage of the furrows being thrown down hill and was, consequently, better plowed than the north side, all the furrows of which were thrown up hill. The whole lot was planted in Peach Blow potatoes, and both parts well cultivated alike. The season for potatoes in our section of country was very unfavorable, owing to the excessive dry weather, and the ravages of a small worm, which works its way from the stem above ground, to the pith of the root, often penetrating the end of the root; the presence of which may readily be known, by the stumpy vine and curled leaves.

Although this lot was not intended as a comparison of the relative value of the two fertilizers, the *contrast* is still more striking than in the two rows planted by myself, as the figures will show: The 29½ rows produced 49 bushels, and the 32 rows produced only 46 bushels; whereas the 32 rows should have produced 53 bushels to be *equal in quantity* to the 29½ rows; then add 20 per cent. to the 53 bushels, the 32 rows should have produced 63 bushels to equalize the *value* of the two Fertilizers, making a difference in favor of your Super-Phosphate of Lime of 38 per cent. in money value. I put it upon my corn; the effect was quite satisfactory. I put 100 lbs. per acre on poor land, sowed in buckwheat, on the 4th July, and without any exception, the crop was as fine as any I ever saw. Upon roots crops, I consider it unrivalled in its effects; and for crops generally, I believe it is *much* cheaper for the farmer than any other Fertilizer offered to the public.

Several of my neighbors who have been familiar with my crops the two years past, have signified to me their intention of using your Super-Phosphate of Lime the present year. I will probably need about five tons for my own crop; I will not use any other kind, so long as you keep up the present *standard in quality*, and the *relative value in price*, compared with other Fertilizers, unless I shall find another, which, by *actual* comparison, will "*pay better*." I intend the coming season, to make careful comparison with your Super-Phosphate of Lime and other compounds in the market, on corn and wheat.

Very respectfully,

L. W. GOSNELL.

ADVERTISING SHEET.



HOUSE FURNISHING GOODS

FORWARDED AND PACKED
WITH
GREAT CARE
BY
SAMUEL CHILD & CO.,
20 N. CHARLES ST.

Importers of CHINA, GLASS, TABLE CUTLERY,
FAMILY HARDWARE, PLATED GOODS,
and Dealers in TIN, WOODEN and JA-
PANNE, WARE and KITCHEN
FURNITURE of every
character.

WATER COOLERS of our own make. ICE-CREAM
FREEZERS of the most approved kinds. PATENT
ICE PITCHERS, all qualities, and each warranted to be
as represented.

New and Beautiful Patterns of

ENGLISH, FRENCH AND AMERICAN

TABLE GLASSWARE.

**WHISKEY, BRANDY AND
WINE DECANTERS,**

SINGLY AND IN SETS.

BOWLS, DISHES, CELERY STANDS, &c.

Our arrangements made in person with the leading
manufacturers in Europe and this country, and having
resident agents in France and England, give us every
advantage in obtaining our supplies; manufacturing
the common class of goods, such as

TIN AND JAPANNED WARE;

Buying entirely for cash; with a thorough knowledge of
the business in all its details; purchasers may rest as-
sured that we can and will supply their wants as favor-
ably and upon as good terms as any house in New York
or elsewhere.

We respectfully solicit a visit and an examination of
goods and prices. ap-ly

Owners and Manufacturers

OF THE

New Iceland Refrigerator.

MONUMENT IRON WORKS.

DENMEAD & SON,

Corner North and Monument Sts., Baltimore, Md.

MANUFACTURERS OF STATIONARY AND PORTABLE

Steam Engines & Boilers

Of all Sizes.

DAVID'S PATENT PULVERIZING MILLS, for Guanos, Bones, Ores, Clays; also
Flour Making.

SEND FOR CIRCULAR.

ap-ly

THE AMERICAN FARMER

John M. Griffith. W. M. Baker. F. C. Bryan.

GRIFFITH, BAKER & BRYAN,

41 and 43 N. PACA ST.,

BALTIMORE, Md.

Manufacturers of the



CELEBRATED BUCKEYE SELF-DISCHARG-
ING STEEL TOOTH WHEEL

**HORSE RAKE,
DEXTER WASHING MACHINE,**

TINGLEY'S IMPROVED CHURN,

Right Hand CORN SHELLERS,

STRAW CUTTERS. PLOUGHS, HARROWS,
CULTIVATORS, and

AGRICULTURAL IMPLEMENTS

and **HARDWARE** generally.

General Agents for the New BUCKEYESTATE
Reaper and Mower and the celebrated "WORLD"
Enclosed Gear REAPER and MOWER, with
Droppers or Self-Rake Attachments; Tornado
Thresher and Cleaner and Carey Horse Power;
Bullard's Improved Hay Tedder, Hagerstown
Grain and Fertilizer Drill, Cider and Wine Mills
and Presses, &c.

FIELD and GARDEN SEEDS of every de-
scription; FRUIT and ORNAMENTAL TREES,
GUANO, BONE, PLASTER and FERTILIZERS
generally. All kinds of Machinery repaired at
short notice and on reasonable terms.

Call and examine or send for Descriptive Cir-
culars and Price Lists.

GRIFFITH, BAKER & BRYAN,

feb-1y 41 and 43 N. Paca st., Baltimore, Md.

GARDEN AND FLOWER SEEDS,
BY MAIL.

We offer our usual full assortment of Seeds of all kinds,
and forward orders by mail to any P. O. in the United
States; our

Illustrated Descriptive Catalogue for 1873,
will be mailed to any address on receipt of stamp.

feb 4t. EDW'D J. EVANS & CO., York, Penna.

FARMS FOR SALE.

We have a list of very desirable FARMS and PLAN-
TATIONS for sale and exchange, which we should be
glad to exhibit to intending purchasers, including some
in this State, Virginia, Georgia, &c., many of which can
be bought very cheap.

SAMUEL SANDS & SON,

Publishers American Farmer,
Baltimore, Maryland.

feb

EGGS FOR HATCHING.

I am now prepared to book and furnish eggs from my
imported and home bred

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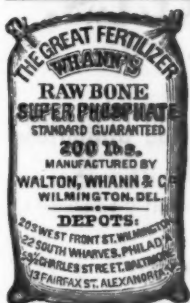
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